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OM nucleic - nucleic search, using sw model

Run on: November 1, 2002, 06:19:23 ; Search time 56 Seconds

(without alignments)
7343.813 Million cell updates/sec

Title: US-09-910-186a-7

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Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 441362 seqs, 15338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Database :

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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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2	263	19.6	1330	1	US-08-480-604A-22
3	263	19.6	1330	2	US-08-405-496A-22
4	263	19.6	1330	4	US-08-915-136-22
5	263	19.6	1402	1	US-08-480-604A-25
6	263	19.6	1402	2	US-08-405-496A-25
7	263	19.6	1402	4	US-08-915-136-25
8	131.4	9.8	1359	1	US-07-618-312A-3
9	131.4	9.8	1359	1	US-08-280-228-3
10	123	9.2	3891	2	US-08-480-604A-27
11	123	9.2	3891	2	US-08-405-496A-27
12	123	9.2	3891	4	US-08-915-136-27
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31	36.8	2.7	9046	5	PCT-US95-04682-1	Sequence 1, Appli
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35	36	2.7	1149	4	US-09-422-487-6	Sequence 6, Appli
36	36	2.7	1149	4	US-09-378-088A-128	Sequence 128, App
37	36	2.7	18596	4	US-09-318-448-11	Sequence 11, Appli
38	35.6	2.7	3378	1	US-07-972-791-11	Sequence 1, Appli
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ALIGNMENTS

RESULT 1
US-09-255-829-19
Sequence 19, Application US/09255829
Patent No. 6461617
GENERAL INFORMATION:
APPLICANT: Shone, Clifford Charles
APPLICANT: Quinn, Conrad Padraig
APPLICANT: Foster, Keith Alan
TITLE OF INVENTION: Recombinant Toxin Fragments
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESS: STERN, KESSLER, GOLDSTEIN, & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, NW, SUITE 600
CITY: WASHINGTON
STATE: DC
COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/255, 829
FILING DATE: 23-FEB-1999
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: PCT/GB97/02273
FILING DATE: 22-AUG-1997
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 08/782, 893
FILING DATE: 27-DEC-1996
ATTORNEY/AGENT INFORMATION:
NAME: BSMOND, ROBERT W.
REGISTRATION NUMBER: 32, 893
REFERENCE/DOCKET NUMBER: 1581, 0130002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2540
TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 19:
SEQUENCE CHARACTERISTICS:
LENGTH: 3509 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
FEATURE:
NAME/KEY: CDS
LOCATION: 1..3509
US-09-255-829-19

Query Match 39.0%; Score 522.4; DB 4; Length 3509;
 Best Local Similarity 71.7%; Pred. No. 4.3e-141;
 Matches 685; Conservative 0; Mismatches 271; Indels 0; Gaps 0;

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 2614 GATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2673
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 2674 GACCTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2733
 190 ACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 249
 2734 ACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2793
 250 ATTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 309
 2794 ATAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2853
 310 ATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 369
 2854 ATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2913
 370 ATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 429
 2914 ATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2973
 430 CGTGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 489
 2974 AGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3033
 490 AACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 549
 3034 AATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3093
 550 CGTGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 609
 3094 AGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3153
 610 CAGTGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 669
 3154 CAGTGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3213
 670 GAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 729
 3214 GAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3273
 730 CTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 789
 3274 TTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3333
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 850 AATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 909
 3394 AATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3453
 910 AATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 965
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RESULT 2
 ; US-08-480-604A-22
 ; Sequence 22, Application US/08480604A
 ; Patent No. 5736139

GENERAL INFORMATION:
 APPLICANT: KINK, JOHN A.
 APPLICANT: THALLEY, BRUCE S.
 APPLICANT: PADHYE, NISHA V.
 APPLICANT: FIRCA, JOSEPH R.
 APPLICANT: STAFFORD, DOUGLAS C.
 TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
 TITLE OF INVENTION: PREVENTION OF C. DIFFICILE DISEASE
 NUMBER OF SEQUENCES: 32
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: MEDLEN & CARROLL, LLP
 STREET: 220 MONTGOMERY STREET, SUITE 2200
 CITY: SAN FRANCISCO
 STATE: CALIFORNIA
 COUNTRY: UNITED STATES OF AMERICA
 ZIP: 94104
 COMPUTER READABLE FORM:
 MEDIUM TYPE: floppy disk
 OPERATING SYSTEM: IBM PC compatible
 SOFTWARE: Patent Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/480,604A
 FILING DATE: 07-JUN-1995
 CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/422,711
 FILING DATE: 14-APR-1995
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/405,496
 FILING DATE: 16-MAR-1995
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/329,154
 FILING DATE: 25-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/161,907
 FILING DATE: 02-DEC-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLTA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPHD-01763
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 22:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1330 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 1..1314
 US-08-480-604A-22
 Query Match 19.6%; Score 263; DB 1; Length 1330;
 Best Local Similarity 53.9%; Pred. No. 2.5e-66;
 Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;

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 84 TCACCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 143

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495 TCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 554
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615 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 674
666 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 725
675 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 734
726 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 785
735 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 794
786 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 845
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RESULT 3
US-08-405-496A-22
; Sequence 22, Application US/08405496A
; Patent No. 5919665
;
GENERAL INFORMATION:
; APPLICANT: WILLIAMS, JAMES A.
; TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
; NUMBER OF SEQUENCES: 30
;
CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94104
;
COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30
;
CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/405,496A
; FILING DATE: 16-MAR-1995
; CLASSIFICATION: 424
;
PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/329,154
; FILING DATE: 25-OCT-1994
;
PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,907
; FILING DATE: 02-DEC-1993
;
PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/985,321
; FILING DATE: 04-DEC-1992
;
PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/429,791
; FILING DATE: 31-OCT-1989
;
ATTORNEY/AGENT INFORMATION:
; NAME: INGOLIA, DIANE E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPHD-01308
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 397-8338
; TELEFAX: (415) 397-8338
;
INFORMATION FOR SEQ ID NO: 22:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1330 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..1314
;
US-08-405-496A-22
Query Match 19.6%; Score 263; DB 2; Length 1330;
Best Local Similarity 53.9%; Pred. No. 2.5e-66;
Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;

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 726 TACCGATGATGAGATGAGAAATGATCTGAAATCTGAAATCTGAAATCTGAAAT 785
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 846 TACCGATGATGAGATGAGAAATGATCTGAAATCTGAAATCTGAAATCTGAAAT 905
 855 TACCGATGATGAGATGAGAAATGATCTGAAATCTGAAATCTGAAATCTGAAAT 914
 906 TACCGATGATGAGATGAGAAATGATCTGAAATCTGAAATCTGAAATCTGAAAT 965
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 966 TACCGATGATGAGATGAGAAATGATCTGAAATCTGAAATCTGAAATCTGAAAT 1025
 975 TACCGATGATGAGATGAGAAATGATCTGAAATCTGAAATCTGAAATCTGAAAT 1034
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RESULT 4
 1 US-08-915-136-22
 2 Sequence 22, Application US/08915136
 3 Patent No. 6290960

GENERAL INFORMATION:
 APPLICANT: KINK, JOHN A.
 APPLICANT: THALEY, BRUCE S.
 APPLICANT: PADHYE, NISHA V.
 APPLICANT: FIRCA, JOSEPH R.
 APPLICANT: STAFFORD, DOUGLAS C.
 TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
 PREVENTION OF C. DIFFICILE DISEASE
 NUMBER OF SEQUENCES: 32
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: MEDLEN & CARROLL, LLP
 STREET: 220 MONTGOMERY STREET, SUITE 2200
 CITY: SAN FRANCISCO
 STATE: CALIFORNIA
 COUNTRY: UNITED STATES OF AMERICA
 ZIP: 94104
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/915,136
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/480,604
 FILING DATE:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/405,496
 FILING DATE: 16-MAR-1995
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/329,154
 FILING DATE: 25-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/161,907
 FILING DATE: 02-DEC-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLIA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPED-01763
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 22:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1330 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 FEATURE:
 MOLECULE TYPE: DNA (genomic)
 NAME/KEY: CDS
 LOCATION: 1..1314
 US-08-915-136-22

Query Match 19.6%, Score 263, DB 4, Length 1330;
 Best Local Similarity 53.9%, Pred. No. 2, 5e-66;
 Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;

15 CAACATATCAATTCGGAATCCGTAACATATCATCTGAGCTGCTGACAAAGACA 74
 24 CACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 63
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QY 130 -GAACGTAATGACAAAGACAGTTCAAACTGACCTCTCCGCTAACTCAAGATCCGCTG 188
 DB 144 CGATCCGATGACAAAGATGATGATCCAGCTGCTCAATCTGATCTTCCAAATATGAGCT 203
 QY 189 TATCAGAAATGAGAAATGATCTTCAACCTCCGATTCCTGAGATCTCTGCTTCCCTG 248
 DB 204 TATCTGTAAGAAATGATCTTCAACCTTATGATGAGAAATCTTCCACCTCTCTG 263
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 DB 264 GATCGTATCCGAAATGATCTTCAACCTGCTCTCTGATGATGATGATGATGATGATG 314
 QY 309 CATCATCACTGATGAGAAATTAATCTGCTGTTGAGAAATCTCCATCCGCGGTACCTGAT 368
 DB 315 CATCATCACTGATGAGAAATTAATCTGCTGTTGAGAAATCTCCATCCGCGGTACCTGAT 374
 QY 369 CATCTGAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 428
 DB 375 CATCTGAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 434
 QY 429 CCGTGAAGACATCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 485
 DB 435 GATGATCAACATCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 494
 QY 486 CCGTGAAGACATCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 545
 DB 495 TCTGAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 554
 QY 546 CATCGTGAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 605
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 QY 606 TACCCAGTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 655
 DB 615 TACCCAGTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 674
 QY 666 TATCGAAGACATCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 725
 DB 675 TATCGAAGACATCTCTGATGATGATGATGATGATGATGATGATGATGATGATGATG 724
 QY 726 TCCGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 785
 DB 735 TACCTGAGTACGACAAACCGTACTGATGATGATGATGATGATGATGATGATGATG 794
 QY 786 CAAACTGAGAAAGACTCTCCGCTGATGATGATGATGATGATGATGATGATGATGAT 845
 DB 795 TACGTCACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 854
 QY 846 CTCTAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 905
 DB 855 TATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 914
 QY 906 ATCTAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 965
 DB 915 GAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 974
 QY 966 CTCTTCAACCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1025
 DB 975 TGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1034
 QY 1026 AGAAAGCTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1085
 DB 1035 AAGAGATCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1094
 QY 1086 CAAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1145
 DB 1095 GAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1151
 QY 1146 ATCTAGTACGAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1190
 DB 1152 CAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1196

RESULT 5
 US-08-480-604A-25
 : Sequence 25, Application US/08480604A
 : Patent No. 5736139
 :
 : GENERAL INFORMATION:
 : APPLICANT: KINK, JOHN A.
 : APPLICANT: THALLEY, BRUCE S.
 : APPLICANT: PADHYE, NISHA V.
 : APPLICANT: FIRCA, JOSEPH R. C.
 : APPLICANT: STAFFORD, DOUGLAS C.
 : TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
 : PREVENTION OF C. DIFFICILE DISEASE
 : NUMBER OF SEQUENCES: 32
 : CORRESPONDENCE ADDRESS:
 : ADDRESSEE: MEDLEN & CARROLL, LLP
 : STREET: 220 MONTGOMERY STREET, SUITE 2200
 : CITY: SAN FRANCISCO
 : STATE: CALIFORNIA
 : COUNTRY: UNITED STATES OF AMERICA
 : ZIP: 94104
 :
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: Patent In Release #1.0, Version #1.30
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/480,604A
 : FILING DATE: 07-JUN-1995
 : CLASSIFICATION: 424
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 08/422,711
 : FILING DATE: 14-APR-1995
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 08/405,496
 : FILING DATE: 16-MAR-1995
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 08/329,154
 : FILING DATE: 25-OCT-1994
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 08/161,907
 : FILING DATE: 02-DEC-1993
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 07/985,321
 : FILING DATE: 04-DEC-1992
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: US 07/429,791
 : FILING DATE: 31-OCT-1989
 : ATTORNEY/AGENT INFORMATION:
 : NAME: INGOLIA, DIANE E.
 : REGISTRATION NUMBER: 40,027
 : REFERENCE/DOCKET NUMBER: OPHD-01763
 : TELECOMMUNICATION INFORMATION:
 : TELEPHONE: (415) 705-8410
 : TELEFAX: (415) 397-8338
 : INFORMATION FOR SEQ ID NO: 25:
 : SEQUENCE CHARACTERISTICS:
 : LENGTH: 1402 base pairs
 : TYPE: nucleic acid
 : STRANDEDNESS: double
 : TOPOLOGY: linear
 : MOLECULE TYPE: DNA (genomic)
 : FEATURE:
 : NAME/KEY: CDS
 : LOCATION: 1..1386
 : US-08-480-604A-25
 :
 : Query Match 19.6%; Score 263; DB 1; Length 1402;
 : Best Local Similarity 53.9%; Pred. No. 2.6e-66;
 : Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;
 :
 : 15 CAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 74

Db 96 CACTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 155
 QY 75 CACTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 129
 Db 156 TCACCTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 215
 QY 130 -GAACTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 188
 Db 216 CGATCGGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 275
 QY 189 TACTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 248
 Db 276 TACTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 335
 QY 249 GATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 308
 Db 336 GATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 386
 QY 309 CATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 368
 Db 387 CATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 446
 QY 369 CATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 428
 Db 447 CATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 506
 QY 429 CCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 485
 Db 507 GATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 566
 QY 486 CCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 545
 Db 567 TCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 626
 QY 546 CATGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 605
 Db 627 TCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 686
 QY 606 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 665
 Db 687 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 746
 QY 666 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 725
 Db 747 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 806
 QY 726 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 785
 Db 807 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 866
 QY 786 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 845
 Db 867 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 926
 QY 846 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 905
 Db 927 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 986
 QY 906 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 965
 Db 987 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1046
 QY 966 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1025
 Db 1047 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1106
 QY 1026 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1085
 Db 1107 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1166
 QY 1086 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1145
 Db 1167 TACCGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1223

QY 1146 ATCTAGTAAGAACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1190
 Db 1224 CACTGTAATACATCAAGAACATCATATACCTCCATCCCTGACCTGGCTACGAAATCCAA 1268
 RESULT 6
 US-08-405-496a-25
 ; Sequence 25, Application US/08405496a
 ; Patent No. 591965
 ; GENERAL INFORMATION:
 ; APPLICANT: WILLIAMS, JAMES A.
 ; TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
 ; TITLE OF INVENTION: NEUROTOXIN
 ; NUMBER OF SEQUENCES: 30
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: MEDLEN & CARROLL, LLP
 ; STREET: 220 MONTGOMERY STREET, SUITE 2200
 ; CITY: SAN FRANCISCO
 ; STATE: CALIFORNIA
 ; COUNTRY: USA
 ; ZIP: 94104
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; OPERATING SYSTEM: IBM PC compatible
 ; SOFTWARE: Patent Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/405,496a
 ; FILING DATE: 16-MAR-1995
 ; CLASSIFICATION: 424
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/329,154
 ; FILING DATE: 25-OCT-1994
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/161,907
 ; FILING DATE: 02-DEC-1993
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/985,321
 ; FILING DATE: 04-DEC-1992
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/429,791
 ; FILING DATE: 31-OCT-1989
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: INGOLTA, DIANE E.
 ; REGISTRATION NUMBER: 40,027
 ; REFERENCE/DOCKET NUMBER: OPHD-01308
 ; TELEPHONE: (415) 705-8410
 ; TELEFAX: (415) 397-8338
 ; INFORMATION FOR SEQ ID NO: 25:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 1402 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: double
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA (genomic)
 ; FEATURE:
 ; NAME/KEY: CDS
 ; LOCATION: 1..1386
 ; US-08-405-496a-25
 Query Match 19.6%; Score 263; DB 2; Length 1402;
 Best Local Similarity 53.9%; Pred. No. 2.6e-66;
 Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;

OY 130 -GAACGATGACAGAACACAGTTCAACTGACCTCTTCCGCTAACTCTAGATCCGTGT 188
 DB 216 CGATCCATCGACAGAGATCGATCCAGCTGTCAATCGGATCTTCCAAATGGAAGT 275
 OY 189 TACTGAGATGACAGATCTCTTCACTCCGATTCCTGAGACTCTCTGTTCCCTCG 248
 DB 276 TATCTGAGAGATGCTCTGTATACACTCTATGTCGAAACTTCTCCACTCTCTCG 335
 OY 249 GATTCGATCCCGAATACAGACAGCGGTATCCAGAAATACATCCACATGAATAC 308
 DB 336 GATCCGATCCCGAATACACTCTCC-----ATCTCTGAAACAAATGAATACAC 386
 OY 309 CATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 368
 DB 387 CATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 446
 OY 369 CATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 428
 DB 447 CATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 506
 OY 429 CCGTGAAGACATCTCTGATATACATGATGATGATGATGATGATGATGATGAT 485
 DB 507 GATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 566
 OY 486 CCTGAACATGCTTAAATCTACATCAACGCTTAACTGAAATCTATATCCGACATCA 545
 DB 567 TCTGAATATCTCCAAATCTACATCAACGCTTAACTGAAATCTATATCCGACATCA 626
 OY 546 CATCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 605
 DB 627 TCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 686
 OY 606 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 665
 DB 687 TACCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 746
 OY 666 TATCGAGAGAGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 725
 DB 747 TATCGAGAGAGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 806
 OY 726 TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 785
 DB 807 TACCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 866
 OY 786 CAACTGAGAGAGAGGATGATGATGATGATGATGATGATGATGATGATGATGAT 845
 DB 867 TACCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 926
 OY 846 CTCTTAATATCATCACTCCGACCTGATGATGATGATGATGATGATGATGATGAT 905
 DB 927 TATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 986
 OY 906 ATCTACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 965
 DB 987 GAAATACCGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1046
 OY 966 CTCTTCAACTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1025
 DB 1047 TGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1106
 OY 1026 AGAAAAAGCTTTCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 1085
 DB 1107 TATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1166
 OY 1086 CAAAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1145
 DB 1167 GAAATACCGGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1223
 OY 1146 ATCTACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1190
 DB 1224 CAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1268

RESULT 7
 US-08-915-136-25
 ; Sequence 25, Application US/08915136
 ; Patent No. 6250960
 ; GENERAL INFORMATION:
 ; APPLICANT: KINK, JOHN A.
 ; APPLICANT: THALLEY, BRUCE S.
 ; APPLICANT: PADHYE, NISHA V.
 ; APPLICANT: FIRCA, JOSEPH R.
 ; APPLICANT: STAFFORD, DOUGLAS C.
 ; TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
 ; PREVENTION OF C. DIFFICILE DISEASE
 ; NUMBER OF SEQUENCES: 32
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: MEDLEN & CARROLL, LLP
 ; STREET: 220 MONTGOMERY STREET, SUITE 2200
 ; CITY: SAN FRANCISCO
 ; STATE: CALIFORNIA
 ; COUNTRY: UNITED STATES OF AMERICA
 ; ZIP: 94104
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; OPERATING SYSTEM: IBM PC compatible
 ; SOFTWARE: Patent Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/915,136
 ; FILING DATE:
 ; CLASSIFICATION:
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/480,604
 ; FILING DATE:
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/405,496
 ; FILING DATE: 16-MAR-1995
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/329,154
 ; FILING DATE: 25-OCT-1994
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 08/161,907
 ; FILING DATE: 02-DEC-1993
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/985,321
 ; FILING DATE: 04-DEC-1992
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US 07/429,791
 ; FILING DATE: 31-OCT-1989
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: INGOLIA, DIANE E.
 ; REGISTRATION NUMBER: 40,027
 ; REFERENCE/DOCKET NUMBER: OPFD-01763
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (415) 397-8338
 ; TELEFAX: (415) 397-8338
 ; INFORMATION FOR SEQ ID NO: 25:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 1402 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: double
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: DNA (genomic)
 ; FEATURE:
 ; NAME/KEY: CDS
 ; LOCATION: 1..1386
 ; US-08-915-136-25
 Query Match 19.6% Score 263 DB 4: Length 1402;
 Best Local Similarity 53.9% Pred. No. 2.6e-66;
 Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;
 OY 15 CAAAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 74
 || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||

Db 96 CACTGATATACATCAAGAACATCATCACTCCATCTGAACTCGGCTACGATCCAA 155
QY 75 CAATCGATGATCTGTCTGTTAGGTGAAGTTAAGTATACGACGGTGT----- 129
Db 156 TCACCTGATCGATCTGTCTGTTAGGTGAAGTTAAGTATACGACGGTGT----- 129
QY 130 -GAACTGAATGACAGAACCAAGTCAAACTGCTTCCCTTACCTTAAAGTCCGT 188
Db 216 CGATCCGATGACAGAACCAAGTCAAACTGCTTCCCTTACCTTAAAGTCCGT 188
QY 189 TACTGAAATGACAGAACCAAGTCAAACTGCTTCCCTTACCTTAAAGTCCGT 188
Db 276 TATCGGAAATGATCTGTCTGTTAGGTGAAGTTAAGTATACGACGGTGT----- 129
QY 249 GATTCGATCCGAAATGACAGAACCAAGTCAAACTGCTTCCCTTACCTTAAAGTCCGT 188
Db 336 GATTCGATCCGAAATGACAGAACCAAGTCAAACTGCTTCCCTTACCTTAAAGTCCGT 188
QY 309 CATCATCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 368
Db 387 CATCATCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 368
QY 369 CATTCGATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 368
Db 447 CATTCGATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 368
QY 429 CCGTGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 507 GATGATCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 486 CCGTGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 567 TCTGATCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 546 CATCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 627 TCTGATCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 606 TACCAGTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 687 TCAACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 666 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 747 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 726 TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 807 TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 786 TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 867 TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 846 TCCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 927 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 906 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 987 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 966 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 1047 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 1026 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 1107 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
QY 1086 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485
Db 1167 TATCGAAGATCTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 485

QY 1146 ATCTACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1190
Db 1224 CATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1268
RESULT 8
US-07-618-312A-3
Sequence 3, Application US/07618312A
Patent No. 5389540
GENERAL INFORMATION:
APPLICANT: Makori Dr, Andrew J
APPLICANT: Romanos Dr, Michael A
APPLICANT: Clare Dr, Jeffrey J
APPLICANT: Fairweather Dr, Neil F
TITLE OF INVENTION: VACCINES
NUMBER OF SEQUENCES: 13
CORRESPONDENCE ADDRESS:
ADDRESSEE: 14th Floor
STREET: 2200 Clarendon Boulevard,
CITY: Arlington,
STATE: Virginia
COUNTRY: U.S.A.
ZIP: 22201
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/618,312A
FILING DATE: 19910516
CLASSIFICATION: 424
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: GB 8926832.0
FILING DATE: 28-NOV-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9006097.1
FILING DATE: 17-MAR-1990
ATTORNEY/AGENT INFORMATION:
NAME: Crawford Mr, Arthur R
REGISTRATION NUMBER: 25,327
REFERENCE/DOCKET NUMBER: 510-51
TELECOMMUNICATION INFORMATION:
TELEPHONE: 0101 703 8750400
TELEFAX: 0101 703 5253468
TELEX: 200797 NIXN UR
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1359 base pairs
TYPE: NUCLEIC ACID
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: CDNA
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Clostridium tetani
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1356
US-07-618-312A-3
Query Match 9.8%; Score 131.4; DB 1; Length 1359;
Best Local Similarity 47.6%; Pred. No. 2; Be-28;
Matches 633; Conservative 0; Mismatches 636; Indels 60; Gaps 6;

Db 118 AACCTCTGTATACATATCCAGATGCTCATTTGGTGGCGGGCATCAAGGCAAGT 177
Qy 160 ACCCTTCCGGTAC-----TCATAGTCCGTGTCTACTCGAATTCAGACATATC 210
Db 178 ATCCACCTGGTTAACACAGAAATCTTGAAGTTATCCGACCAAGGCCATGAGATCGAA 237
Qy 211 TTCACTCCGTTTCCTGGACTTCCTGTTCTCTGTTGATTCGATCCGAAATACAG 270
Db 238 TACACAGACATGTTCAACAACTTCCAGCTTACCTTTCGCTGCGCCGTTCCGAAAGTTCT 297
Qy 271 AACGACGGTATCCAGAAATTCATCCACATGAATACACATCATCACTGCAATGAGAT 330
Db 298 GCTTCCACCTGGAACAGTACGGGCTAACGAGTACTCATCATCAGCTCATGATGAGAAA 357
Qy 331 AA-----CTCTGGTGGAAATCCACATCCGCGGGAATCCGATCATCTGG 375
Db 358 CATCTCCCTCCATCGGCTCTGTTGGTCTGTTCCCTGGAAGGGTAAACACCTATCTGG 417
Qy 376 ACTCTGATGATATCAACGGTAAAGCAAAATCTGATTCCTGGAATACACATCCGTGAA 435
Db 418 ACTCTGAAGACTCCGCGGGCGAAGTGTGATGATGATCTTCCGACCTCCGAGACAG 477
Qy 436 GAAATCTGATATCATCAATGCGGTTCCTGTTACCATCAG--CAATAACTGAC 492
Db 478 TTCAACGGCTACCTGCTTACAAATGGGTTTCACTATCATCATCACTGATCGTCTGCT 537
Qy 493 AATCTAAATCTACATCAACGGTAACTGAATCTAAATACGACATCAAGACATCCGT 552
Db 538 TCGGTACACTGATCAATCAACGGCGTGTGATGGGCTCCGCGAATCATCTGCTGGGC 597
Qy 553 GAAGTTATGCTTAACGGTAAATCATCTTCAACTGAGCGGTGACATGATGATGATGAC 612
Db 598 GCTATCCGTGAGACAAACATCACTCTTAACTGAGACCGTGTGAACAACAACACAG 657
Qy 613 TTCACTGATGATATCTCTCAATCTTCAATCTTCAACACCGAAGTCTCACTTCAATATGCA 672
Db 658 TAGGTATCATGACAAAGTTCGTTACTCTGTCGAAGAAGACATCAACCGAAGATGCA 717
Qy 673 GAACGGTACAAATCCAGTCTTACTCCGATACCTGGAATCTTGGGGTATCCGCTG 732
Db 718 AACTGTATACCGACTACCTGCTATACCTTCACTTCCGCTGATCTTGGGGTAAACCGCTG 777
Qy 733 ATGACACAAAGATATATATGTCATGCTGTTGAACAAGATCTTACATCACTAACTG 792
Db 778 CGTTAGCACCAATATATACCTGATCCGGTATGCTTACGCTTAAGACCTTAACTG 837
Qy 793 AAGAAAGACTCTCCGGTGGTGAATCTGACTGCTTCCAAATTAACACCAAGACTCTAA 852
Db 838 AAAAATCACTGACTACATGTAATGCTGACCAACCGCCCTCTCACTAACGTAACGTG 897
Qy 853 TACATCACTACCGGACCGCTGATACGCGGGAAGATGATCATCCGCAATCTAAC 912
Db 898 AACTCTACTACGACGCTCTGTCACAGGCTGGAATTTATCATCAACGCTAACCTCG 957
Qy 913 TCTCAGTCAATGATGACATGTAAGTAAAGAACTACATCTTACCTGACTTCTC 972
Db 958 AACACGAAATGATTTCTTCTTAAATCTGAGACTTATCAACTGATCTTCTTAC 1017
Qy 973 AACTGATATGAGATGGCTGTATAC-----CTACAAGTACTCAAGAAAGAGA 1026
Db 1018 AACACACAGACATCTGTTGTTACCGGAAAGAGGTAAGCTTTCACAACTGAGC 1077
Qy 1027 GAAAGCTTTCTGCTCGATCTGATTCGAGAACTCTACACACATCCAGATC 1086
Db 1078 AGAATTCGGCTTTGTTTACAGGCTCCGGGTATCCCGGTGACAAAAAATGAGAGCT 1137
Qy 1087 AAAAGATACAGCAAGCGGACCTATCTTGGCAGCTGTGTTCAAGAAAGATGAGAA 1146
Db 1138 GTTAAATCGCTGACGTAAGAACTACTGTTCAAGCTGTAAGTGAAGCAAGCAAAAC 1197
Qy 1147 TCTACTGACGAATCGGTGATGATCCACGTTTCAAGCAATCTGATCTATTC 1206
Db 1198 GCTTCTC-----TGGGTCTGGTGGTACCAACAGGTGATCGGTAC 1242

Qy 1207 GAAGATACAAAGACTACTTCTGATCTCCAAATGTAAGTGAAGAAATTAACGCAA 1266
Db 1243 GACCCGAAACCGGACATCTGATGCTTCACTGATGATGATGATGATGATGATGATGAT 1302
Qy 1267 CCGTACAACTGAAAGTGGTTCATATGCGCATTCATCCGAAAGCAAGGTTGAC 1326
Db 1303 -----ATCCTGGTGGAGCTGATCTGCTCGACGATGAAGGTTGAC 1350
Qy 1327 GAATAGTAA 1335
Db 1351 AACGACTAA 1359

RESULT 9
US-08-280-228-3
Sequence 3, Application US/08280228
Patent No. 5571694

GENERAL INFORMATION:
APPLICANT: Makoff Dr, Andrew J
APPLICANT: Romanos Dr, Michael A
APPLICANT: Clare Dr, Jeffrey J
APPLICANT: Fairweather Dr, Neil F
TITLE OF INVENTION: VACCINES
NUMBER OF SEQUENCES: 13

CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 No. 5571694th Giebe Road
CITY: Arlington,
STATE: Virginia
COUNTRY: U.S.A.
ZIP: 22201-4714

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/280,228
FILING DATE: 25-JUL-1994

CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/618,312
FILING DATE: 27-NOV-1990

CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 8926832.0
FILING DATE: 28-NOV-1989

PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9006097.1
FILING DATE: 17-MAR-1990

ATTORNEY/AGENT INFORMATION:
NAME: Wilson, Mary J.
REGISTRATION NUMBER: 32,955

REFERENCE/DOCKET INFORMATION:
TELEPHONE: (703) 816-4000
TELEFAX: (703) 816-4100
TELEX: 200797 NIXN UR

INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1359 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: CDNA
HYPOTHEICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Clostridium tetani
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1356

ATTORNEY/AGENT INFORMATION:
 NAME: INGOLTA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPD-01763
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 27:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 3891 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 1..3888
 US-08-480-604A-27

Query Match 9.2%; Score 123; DB 1; Length 3891;
 Best Local Similarity 50.2%; Pred. No. 1.3e-25;
 Matches 396; Conservative 0; Mismatches 375; Indels 18; Gaps 3;

OY 20 AATGCAATTCGGAATTCCTGACAAATATCTCTGTAACCTGCGTTCAAGACAAATC 79
 DB 2603 AATGATTTAAGAAATATTATTAATCTCTATTTGAATTAAGATTTGAAGTAATCAT 2662
 OY 80 TGATGATCTGTCTGTTAGCGTCTAAA-----GTGAGATATGAGCGGTGTAAC 133
 DB 2663 TAATAGACTATCTAGTAGCATCAAAAATAATATGTTAGTAAGTAATTTTGATC 2722
 OY 134 TGAATGACAAAGAACCAATGACCTCTCCGCTAATCTAAGATCCGCTTAC 193
 DB 2723 CAATGATTAATAAATCAATTCATATTATTAGAAATGTAATAATGAGTAATTT 2782
 OY 194 AGAATCAGAACATCTCTCACTCCGATTCCTGACTCTCTGTTCTCTCTGATTC 253
 DB 2783 TAAAAAATGCTATGTTATTAATATGATGTAATGAAATTTTACTACTGTTTGAATA 2842
 OY 254 GTATCCGGAATTAACAAGACGCGTATCCGAATTACATCCAAATGATACCATCA 313
 DB 2843 GAATTCCTAAGTATTTTAAAGATATAAGTCTAAT-----AATGATATACATAA 2893
 OY 314 TCAACTGCATGAGATTAATCTGTTGGAAGATTCATCCGCGGTAAACCGTATCATCT 373
 DB 2894 TAAATGTATGGAATAATATTCAGATGGAAGATATCACTAATTTATGGGAATATCT 2953
 OY 374 GGAATCTGATGATCAAGCGTAAAGCAAAATCTGATTCCTGGAATACACATCCGTG 433
 DB 2954 GGACTTTAAGAGATCTCAGGAAATAAAGAGAGATGTTTAAATACAGTCAATGA 3013
 OY 434 AAGACATCTGATATACATCAATGCGTGTCTCTGTTTACCATCACAATAA---CCTGA 490
 DB 3014 TTAATATTCAGATTAATTAACAGATGATTTTGTACTATCACTAATAATAGATTAA 3073
 OY 491 ACAATGCTAAATCTACATCAACGATTAACGTAATTAATACCGATCAAGACATCC 550
 DB 3074 ATAACTCTAAATTTTAAATGAAGATTAATAGATCAAAACCAATTTCAATTTAG 3133
 OY 551 GTGAAGTATCGCTAAGCGTGAATCAATCTTCAACCTGCGGTGACATCGATCGACCC 610
 DB 3134 GTAAATTCATGCTAATTAATTAATGTTTAAATGATGTTGATGATGATACATGA 3193
 OY 611 AGTTCACTGATGATAATCTCTCCATCTTCAACACGAGCTGCTCACTCCCAATATG 670
 DB 3194 GATATATTTGATTAATATTTTATCTTTTGTATGATGAATTAATGAAGAAATGA 3253
 OY 671 AAGAACGCTACAGATCCAGCTCTACTCCGAATACCTGGAAGACTCTGGGGTAATCCGC 730
 DB 3254 AAGATTTATATGATTAATCAATCAATCTAGTATTTTAAAGACTTTTGGGGGATTAAT 3313
 OY 731 TGATGATCAAAAGATTAATGATGTTGATGATGTTGATGATGATGATGATGATGATG 790

DB 3314 TACAAATGATAAACCATACTATATGTTAAATTAATGATCAATAAATAATGATG 3373
 OY 791 TGAAGAAAG 799
 DB 3374 TAAATTAATG 3382

RESULT 11
 US-08-405-496A-27
 Sequence 27, Application US/08405496A
 Patent No. 591865
 GENERAL INFORMATION:
 APPLICANT: WILLIAMS, JAMES A.
 TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
 TITLE OF INVENTION: NEUROTOXIN
 NUMBER OF SEQUENCES: 30
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: MEDLEN & CARROLL, LLP
 STREET: 220 MONTGOMERY STREET, SUITE 2200
 CITY: SAN FRANCISCO
 STATE: CALIFORNIA
 COUNTRY: USA
 ZIP: 94104
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/405,496A
 FILING DATE: 16-MAR-1995
 CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/329,154
 FILING DATE: 25-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/161,907
 FILING DATE: 02-DEC-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLTA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPD-01308
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 27:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 3891 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 1..3888
 US-08-405-496A-27

Query Match 9.2%; Score 123; DB 2; Length 3891;
 Best Local Similarity 50.2%; Pred. No. 1.3e-25;
 Matches 396; Conservative 0; Mismatches 375; Indels 18; Gaps 3;

OY 20 AATGCAATTCGGAATTCCTGACAAATATCTCTGTAACCTGCGTTCAAGACAAATC 79
 DB 2603 AATGATTTAAGAAATATTATTAATCTCTATTTGAATTAAGATTTGAAGTAATCAT 2662
 OY 80 TGATGATCTGTCTGTTAGCGTCTAAA-----GTGAGATATGAGCGGTGTAAC 133


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DB 2663 TAAATGACTTACTAGTATGATCAAAATAATATGTAAGTAATATTTGATC 2722
QY 134 TGAATGACAGAACAGAGTTCACAACTGACCTCTCCGCTAAGTCCGTTACTC 193
DB 2723 CAATAGATTAATAATCAATATTAATTTGAAGTAGTAATAATGAGTAATTT 2782
QY 194 AGAATGAGAACATCACTTCACTCCGATTCCTGAGTCTCTGTTCCCTGAGATC 253
DB 2783 TAAATAATGCTATGATTAATTAATGATGAAATTTAGTACTGCTTTGGATTA 2842
QY 254 GTATCCGAAATCAAGAACAGAGTATCCAGATTAATCAATGATCAACATCA 313
DB 2843 GAATTCCTAGATTTTAAAGATTAAGCTAAAT-----AATGATATCAATAA 2893
QY 314 TCAATGATGAAGATTAATCTGTTGGAAGATTCATCCGCGGTACCGTATCAT 373
DB 2894 TAAATGATGAGAAATAATTCAGGATGGAAGTATCACTTAATTAATGATTAAT 2953
QY 374 GGAATGATGATCAAGGATGAGAACCAATCTGATTTCTTCGATACACATCCG 433
DB 2954 GGAATTTACAGATCTACGAAATTAACAAAGAGTAGTTTAAATACAGTCAATGA 3013
QY 434 AAGACATCTGATTAATCAATCAATCTGCTGTTCTGTTACATCACTCAATA---CTGA 490
DB 3014 TTAATATATGATTAATTAACAGATGATTTTGTAACTATCACTAATATAGATTAA 3073
QY 491 ACAATGCTAAATCTCAATCAATCAATGATTAATGATTAATGATTAATGATTAAT 550
DB 3074 TTAATCTTAATTAATTAATTAATGAAGATTAATGATTAATGATTAATGATTAAT 3133
QY 551 GTGAAGTATGCTTAAGGATTAATGATTAATGATTAATGATTAATGATTAATGATTAAT 610
DB 3134 GTATATATCAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3193
QY 611 AGTTCATCTGATGAAGATTAATCTCAATCTCAATCAATGATTAATGATTAATGATTAAT 670
DB 3194 GATATATTTGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3253
QY 671 AAGACATCTGATTAAGGATTAATGATTAATGATTAATGATTAATGATTAATGATTAAT 730
DB 3254 AAGATTTATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3313
QY 731 TGAATGATGAAGATTAATGATTAATGATTAATGATTAATGATTAATGATTAATGATTAAT 790
DB 3314 TAAATGATGAAGATTAATGATTAATGATTAATGATTAATGATTAATGATTAATGATTAAT 3373
QY 791 TGAAGAAAG 799
DB 3374 TAAATTAAG 3382

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RESULT 12
US-08-915-136-27
Sequence 27, Application US/08915136
Patent No. 6290960
GENERAL INFORMATION:
APPLICANT: KINK, JOHN A.
APPLICANT: THALLEY, BRUCE S.
APPLICANT: PADHYE, NISHA V.
APPLICANT: FIRCA, JOSEPH R.
APPLICANT: STAFFORD, DOUGLAS C.
TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
PREVENTION OF C. DIFFICILE DISEASE
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESSES:
ADDRESSEE: MEDLEN & CARROLL, LLP
CITY: SAN FRANCISCO
STATE: CALIFORNIA
COUNTRY: UNITED STATES OF AMERICA
ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/915,136
FILING DATE:
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 08/480,604
FILING DATE:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 08/405,496
FILING DATE: 16-MAR-1995
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 08/329,154
FILING DATE: 25-OCT-1994
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 08/161,907
FILING DATE: 02-DEC-1993
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 07/985,321
FILING DATE: 04-DEC-1992
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 07/429,791
FILING DATE: 31-OCT-1989
ATTORNEY/AGENT INFORMATION:
NAME: INGOLIA, DIANE E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPBD-01763
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
LENGTH: 3891 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
FEATURE:
NAME/KEY: CDS
LOCATION: 1..3888
US-08-915-136-27
Query Match 9.2%; Score 123; DB 4; Length 3891;
Best Local Similarity 50.2%; Pred. No. 1.3e-25;
Matches 396; Conservative 0; Mismatches 375; Indels 18; Gaps 3;
QY 20 AATACAAATTCGAAATCTGACAAATATCAATCTCTGAACTCGGTTACAAAGACAAATC 79
DB 2603 AATATATTAGAAATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2662
QY 80 TGATGATCTGCTGTTAGCGTCTAA-----GTGAAGTATACGAGGTGTTGAAC 133
DB 2663 TAAATGACTTACTAGTATGATCAAAATAATTAATGATTAATGATTAATGATTAATGATTAAT 2722
QY 134 TGAATGACAGAACAGAGTTCACAACTGACCTCTCCGCTAAGTCCGTTACTC 193
DB 2723 CAATAGATTAATAATCAATATTAATTTAAGAAAGTAGTAATAATGAGTAATTT 2782
QY 194 AGAATGAGAACATCACTTCACTCCGATTCCTGAGTCTCTGTTCCCTGAGATC 253
DB 2783 TAAATAATGCTATGATTAATTAATGATGAAATTTAGTACTGCTTTGGATTA 2842
QY 254 GTATCCGAAATCAAGAACAGAGGATTCAGAAATTCATCCAGATGATTAATCAATCA 313
DB 2843 GAATTCCTAGATTTTAAAGATTAAGCTAAAT-----AATGATATCAATAA 2893
QY 314 TCAATGATGAAGATTAATCTGTTGGAAGATTCATCCGCGGTACCGTATCAT 373
DB 2894 TAAATGATGAGAAATAATTCAGGATGGAAGTATCACTTAATTAATGATTAAT 2953
QY 374 GGAATGATGATCAAGGATGAGAACCAATCTGATTTCTTCGATACACATCCG 433

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Db 2954 GGACTTACAGGATCTCAGGAATAAACAAGAGTAGTTTTTAAATACAGTCAAATGA 3013
QY 434 AAGACATCTCTGATACATCAATCGTCTGTTCTGTTACCATCACCATAA---CCTGA 490
Db 3014 TTAATATACAGATTATATAACACAGATGGATTTTTGTAACTATCACTAATAATAGATTAA 3073
QY 491 ACAATGCTAAATCTACATCAACGGTAACTGGAATCTTAATACCGACATCAAAAGACATCC 550
Db 3074 ATAACTCTAAATTTTATATAAATGAAGATTAAATAGATCAAAACCAATTTCAAATTAG 3133
QY 551 GTGAAGTTATCGTACCGTGAATCACTTCAAACTGGAGGTCACATCGTATCCC 610
Db 3134 GTAATATCGTATGATATAATAATTTTAAATAGATGGTTGTAGAGATACATA 3193
QY 611 AGTTCATCTGATGAATATCTTCTCATCTTCAACACCGAAGTCTCTCAGTCCCAATATCG 670
Db 3194 GATATATTGGATAAAATATTTTATCTTTTGATAAGGAATTAATCAAAAGAAATCA 3253
QY 671 AAGACGGTACAGATCCAGTCTTACTCCGATACCTGAAAGACTTCTGGGGTAAATCCGC 730
Db 3254 AAGATTATATGATATCAATCAATCAATTCAGGTATTTTAAAGACTTTTGGGGTATTTATT 3313
QY 731 TGATGTACAAACAAAGATATCTATATCTTCAATGCTGGTAAACAAAGAACTCTTACATCAAC 790
Db 3314 TACAATATGATAACCATATCTATATCTTAAATTTATATGATCCAAATAAATATGTCGATG 3373
QY 791 TGAAGAAAG 799
Db 3374 TAAATAATG 3382

RESULT 13

US-08-700-651-1
; Sequence 1, Application US/08700651B
; Patent No. 6015882
; GENERAL INFORMATION:
; APPLICANT: PETERSEN, CAROLYN
; APPLICANT: LEECH, JAMES
; APPLICANT: NELSON, RICHARD, C.
; APPLICANT: GUT, JIRI
; TITLE OF INVENTION: VACCINES, ANTIBODIES, PROTEINS, GLYCOPROTEINS, DNAS AND RNAS
; TITLE OF INVENTION: FOR PROPHYLAXIS AND TREATMENT OF Cryptosporidium parvum
; TITLE OF INVENTION: INFECTIONS
; FILE REFERENCE: 480.19-4(HV)
; CURRENT APPLICATION NUMBER: US/08/700,651B
; CURRENT FILING DATE: 1997-08-14
; EARLIER APPLICATION NUMBER: 08/415,751
; EARLIER FILING DATE: 1995-04-03
; NUMBER OF SEQ ID NOS: 15
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 1
; LENGTH: 5163
; TYPE: DNA
; ORGANISM: Cryptosporidium parvum
US-08-700-651-1

Query Match 5.3%; Score 70.6; DB 3; Length 5163;
Best Local Similarity 44.3%; Pred. No. 2.1e-10;
Matches 286; Conservative 0; Mismatches 359; Indels 0; Gaps 0;

QY 269 AGACGAGGGTATCCAGAAATACATCCACATGAATACACCATCATCACTGATGAAGA 328
Db 575 ACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 534
QY 329 ATAACCTGTTGGAAGATCTCCATCCGCGGTAAACCGGTATCATCTGGACTCTGATGATA 388
Db 635 ACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 694
QY 389 TCAACGGTAAACCAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 448
Db 695 ACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 754

QY 449 ACATCAATCGCTGGTCTTCTGTTACCATCAACAATAACCTGAACAATGCTAAATCTACA 508
Db 755 ACTACTACTACTACTACTACTACTACTACTACTACTACTACTACTACTACTACTACTACT 814
QY 509 TCAACGGTAAATCTTAATACCGACATCAAAAGACATCGGTGAAGTTATCGCTAACG 568
Db 815 ACAACTACACACACACACACACACACACACACACACACACACACACACACACACACA 874
QY 569 GTGAATATCTTCAAACTGGAGGTGACATCGATCGTACCCAGTTCTATCTGGATGAAT 628
Db 875 ACTACAACACACACACACACACACACACACACACACACACACACACACACACACAACT 934
QY 629 ACTTCTCCATCTTCAACACCGAAGTCTCTCAGTCCAATATCGAAGACGGTACAAAGATCC 688
Db 935 ACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 994
QY 689 AGTCTTACTCCGAATACCTGTTCCAAATACACACACACACACACACACACACACAAAGAT 748
Db 995 ACAACTACAACTACCAGAAACCAACAACTACTACTACTACTACTACTACTACTACTACT 1054
QY 749 ACTATATGTTCAATGCTGTTAAACAAGAACTCTTACATCAAACTGAAGAAAGACTCTCCGG 808
Db 1055 ACTACTACTACACACACACACACACACACACACACACACACACACACACACACACA 1114
QY 809 TTGCTGAAATCTGACTCGTTCCTCAATACACACACACACACACACACACACACACACCGG 868
Db 1115 ACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 1174
QY 869 ACCTGTACATCGTGAAGAAAGTTCATCATCGTCGCAAACTCTAACT 913
Db 1175 ACCAAGAAACCAACAACAACAACAACAACAACAACAACAACAACAACAACAACA 1219

RESULT 14

US-08-928-361B-4
; Sequence 4, Application US/08928361B
; Patent No. 6071518
; GENERAL INFORMATION:
; APPLICANT: Petersen, Carolyn
; TITLE OF INVENTION: PEPTIDES, POLYPEPTIDES, GLYCOPROTEINS,
; TITLE OF INVENTION: THEIR FUNCTIONAL MUTANTS, VARIANTS, ANALOGS AND FRAGMENTS
; TITLE OF INVENTION: FOR TREATMENT AND DETECTION/DIAGNOSIS OF CRYPTOSPORIDIUM
; TITLE OF INVENTION: SPECIES INFECTIONS
; NUMBER OF SEQUENCES: 30
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PETERS, VERNY, JONES & BIKSA
; STREET: 385 Sherman Avenue, Suite 6
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94306-1840
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/928,361B
; FILING DATE: 12-SEP-1997
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/026,062
; FILING DATE: 13-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Verny, Hana
; REGISTRATION NUMBER: 30,518
; REFERENCE/DOCKET NUMBER: 480.76-1(HV)
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-324-1677
; TELEFAX: 650-324-1678
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 5163 base pairs

Db 121 GACGCTGTGTAAGTGAATGACGAAGACAGTTCAAACTGACCTCTCCGGTAACTCTAAG 180
Qy 181 ATCCGCTGTACTCAGAAACAGAAATCATCTTCAACTCCGCTATTCCTCGGACTCTCTCTGTT 240
Db 181 ATCCGCTGTACTCAGAAACAGAAATCATCTTCAACTCCGCTATTCCTCGGACTCTCTCTGTT 240
Qy 241 TCCTTCTGGATTCTGATCCGGAATACAGAACAGCGGTATCCAGAAATTCACATCCCAAT 300
Db 241 TCCTTCTGGATTCTGATCCGGAATACAGAACAGCGGTATCCAGAAATTCACATCCCAAT 300
Qy 301 GAATACACCATCATCAACTGCTGAAGAAATTAATCTCTGTTGGAAGATCTCCATCCGCGGT 360
Db 301 GAATACACCATCATCAACTGCTGAAGAAATTAATCTCTGTTGGAAGATCTCCATCCGCGGT 360
Qy 361 AACCGTATCATCTGGACTCTGATCGATATCAACGGTATGACCAATCTGTATCTTCGAA 420
Db 361 AACCGTATCATCTGGACTCTGATCGATATCAACGGTATGACCAATCTGTATCTTCGAA 420
Qy 421 TACAACATCCGTTGAAGACATCTCTGAATACATCAATCCGCTGTTCTCGTTACCATCAC 480
Db 421 TACAACATCCGTTGAAGACATCTCTGAATACATCAATCCGCTGTTCTCGTTACCATCAC 480
Qy 481 AATAACCTGAACAATGCTAAATCTACATCAACGGTAACTGGAATCTATATACCGACATC 540
Db 481 AATAACCTGAACAATGCTAAATCTACATCAACGGTAACTGGAATCTATATACCGACATC 540
Qy 541 AAGACATCCGTTGAAGTATCTGCTAACTGGAATCAATCTTCAAACTGGAGGTGACATC 600
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Qy 601 GATCGTACCGATTCATCTGGAATGAAATCTCTCCATCTTCAACACGGAATCTCTCAG 660
Db 601 GATCGTACCGATTCATCTGGAATGAAATCTCTCCATCTTCAACACGGAATCTCTCAG 660
Qy 720 TCCAATATCGAAGACGGTACAGATCCAGTCTTACTCCGATCACTCTGAAAGATCTCTGG 720
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Qy 780 GGTAACTCCGCTGATGTACAAACAAAGAAATCTATATGTTCAATGCTGGTAAAGAACTCT 780
Db 780 GGTAACTCCGCTGATGTACAAACAAAGAAATCTATATGTTCAATGCTGGTAAAGAACTCT 780
Qy 840 TACATCAAACTGAAGAAAGCTCTCCGGTGTGGAATCCCTGACTCGTTCCAAATACAAAC 840
Db 840 TACATCAAACTGAAGAAAGCTCTCCGGTGTGGAATCCCTGACTCGTTCCAAATACAAAC 840
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Qy 1020 CTGACTCTTCAACTGATCAAGAAATGCGGTGTATACACCTCAAGTACTTCAAGAAA 1020
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Qy 1140 CAGATCAAGAAATACGACGAAACAGCGACCTACTCTTGCCAGCTGCTGTTCAGAAAGAT 1140
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Qy 1200 GAAGAAATCTACTGACGAAATCGGTCTGATCGGTATCCACCGTTTCTTACGAATCTGGTATC 1200
Db 1200 GAAGAAATCTACTGACGAAATCGGTCTGATCGGTATCCACCGTTTCTTACGAATCTGGTATC 1200
Qy 1260 GTATTCGAAGATACAGAACTACTCTGATCTCCAAATGTTACCTGAGGAAGTTAAA 1260
Db 1201 GTATTCGAAGATACAGAACTACTCTGATCTCCAAATGTTACCTGAGGAAGTTAAA 1260

Qy 1261 CGCAAAACCGTTACAACTCGAACTGGGTGCAANTTGGCAGTTTCATCCCGAAGACGAGCT 1320
Db 1261 CGCAAAACCGTTACAACTCGAACTGGGTGCAANTTGGCAGTTTCATCCCGAAGACGAGCT 1320
Qy 1321 TGGACCGAATAGTAAAGATTC 1341
Db 1321 TGGACCGAATAGTAAAGATTC 1341

RESULT 2

US-10-051-952-3
; sequence 3, Application US/10051952
; Patent No. US20020107199A1
; GENERAL INFORMATION:
; APPLICANT: Walker, Patricia
; TITLE OF INVENTION: Methods of Administering Botulinum Toxin
; FILE REFERENCE: 2933CIP
; CURRENT APPLICATION NUMBER: US/10/051,952
; CURRENT FILING DATE: 2002-01-17
; PRIOR APPLICATION NUMBER: 09/730,237
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 3
; LENGTH: 3876
; TYPE: DNA
; ORGANISM: botulinum toxin
US-10-051-952-3

Query Match 54.9%; Score 736; DB 12; Length 3876;

Best Local Similarity 72.2%; Pred. No. 3.5e-159;
Matches 955; Conservative 1; Mismatches 366; Indels 0; Gaps 0;

Qy 10 ATGGCCAAACAAATACAAATCCGAAATCTCGAACAATATCATCTCGTAACTCGGTACAAA 59
Db 2554 ATGTTTAAATAATAATAGCGAAATTTTAAATAATATATCTTAAATTTAAGATATAAG 2613
Qy 70 GACAACAATCTCATCGATCTGTCTGTTACGGTCTAAAGTTGAAGTATACGACGGTGT 129
Db 2614 GATAATAATTTAATAGATTTATCAGGATATGGGCAAGGTAGAGGTATATGATGGATC 2673
Qy 130 GAACTGAATGACAAGAACCCAGTTCAAACCTGACCTCTCCGCTAACTCTAAGATCCGTGT 189
Db 2674 GAGCTTAATGATAAAATCAATTTAAATTAAGTCTCAGCAAAATAGATAGATAGAGT 2733
Qy 190 ACTCAAGATCAGAACATCATCTTCAACTCCGTTATCTCTGGACTCTCTGTTTCTCTG 249
Db 2734 ACTCAAAATCAGAAATATCATATTTAATAGTGTCTTCTGTTTATTTAGCGTTAGCTTTGG 2793
Qy 250 ATTCGTATCCGAAATACAAAGACGATATCCAGAATTTACATCCCAATCAATACAC 309
Db 2794 ATAAGATACCTAAATATAGATGATGATGATGATGATGATGATGATGATGATGATGAT 2853
Qy 310 ATCATCAACTGATGAAGAAATTAATCTGTTGGTGGAGATCTCCATCCGCGGTAAACCGTATC 369
Db 2854 ATAATAATGATGATAAAATTAATTCGGCTGTAATAATCTATAGGGTAAATAGGATA 2913
Qy 370 ATCTGACCTCTGATCGATATCAACGGTAAAGACCAATCTGATCTTCTCGAATACAAATC 429
Db 2914 ATATGACTTTAATGATATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2973
Qy 430 CGTGAAGACATCTCTGAATACATCAATCCGCTGGTCTGCTGCTGCTGCTGCTGCTGCTGCTG 489
Db 2974 AGAGAAGATATATCAGAGTATATAAATAGATGTTTGTGTAATTAATTAATTAATTAATTA 3033
Qy 490 AACAATGCTAAATCTACATCAACGGTAACTGGAATCTAATACCGACATCAAGACATC 549
Db 3034 AATAACGCTAAATTTATATTAATGTTAGCTAGATCAATCAATCAATCAATCAATCAATCA 3093
Qy 550 CGTGAAGTATCTCGCTCAACGGTGAATCTCTTCAAACTGGACGGTGAATCGTATCC 609
Db 3094 AGAGAAGTATCTGCTAATGCTGAATAATATTTAAATTAATTAATTAATTAATTAATTAATTA 3153

610 CAGTTCATCTGGATGAATACCTTCTCCATCTTCAACACCGAAGTGTCTGAGTCCCAATATC 669
 3154 CAATTTATTTGGATGAATATTTTCAAGTATTTTAAATAGGGAATTAAGTCAATCAATATTT 3213
 670 GAAGAAGGTTACAGATCCAGTCTTACTCCGATACCTGAAAGACATCTGGGGTAAATCCG 729
 3214 GAAGAAGATATAAAATTCATCATATAGGGAATATTTAAAGAGATTTTGGGGAAATCTCT 3273
 730 CTGATGTACAAAGAAATATATATCTTCAATGCTGGTAAACAGAACTCTTACATCAAA 789
 3274 TTAATGTAGATTAAGATATATATCTTAAATCGGGGAATTAAGATTCATATATAA 3333
 790 CTGAAGAAGACTCTCCGGTGGTGAATCCTGACTCGTTCGAAATACAAACAGAACTCT 849
 3334 CTAAGAAGATTCACCTGTAGGTGAATTTTAAACAGTGAAGAAATATAATCAAAATCT 3393
 850 AAATACATCAACTACCGGACCTGTACATCGGTGAAAGTTTCATCGTCCGCAATCT 909
 3394 AAATATATAAATATAGAGATTTATATATTTGGGAAATATTTTAAAGAAAGTCA 3453
 910 AACTCTAGTCCATCAATGATGACATCGTAGCTTAAGAGACATACATCTACCTGGACTTC 969
 3454 AATCTCAATCTATAAATGATGATATATAGTGAAGAAAGATATATATCTAGATTTT 3513
 970 TTCAACCTGAATCAGGATGCGGTATACACCTTACACCTTCAAGAAAGAAAGAA 1029
 3514 TTTAATTTAAATCAGAGCTGAGAGATATATACCTTAAATATTTTAAAGAAAGAAAG 3573
 1030 AAGCTTTTCCGTGCTGATCTGATCTGATCCGAGCAATCTTACAAACCACTTCCAGATCAA 1089
 3574 AAATGTGTTTGTAGCTCCCTAATAGTGAATCTGATGAGTTTGAATATCTATACAAATAAA 3633
 1090 GAATACGAGACACCGACCTACTCTTTCGAGCTGCTTCAAGAAAGATGAAGATCT 1149
 3634 GAATATAGATATTTTGTATAGTAAATGGTATTAAGAGAGTAAAGAAAGT 3693
 1150 ACTGACGAATCGTCTGATCGATCCGATCCGATCCGATCCGATCCGATCCGATCCGATCCG 1209
 3694 ACTGATGAGATAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3753
 1210 GAATCAAGACTACTTCTGATCTCCAAATGGTACCTGAGGAGGTTAAACCAACCG 1269
 3754 GAGTATAAGATATTTTGTATAGTAAATGGTATTAAGAGAGTAAAGAGGTTAAAGAGACCA 3813
 1270 TACAACCTGAACTGGGTGCAATGGCAGTTCATCCGAAAGCAAGGTTGGACCGAA 1329
 3814 TATAATTTAAATTTGGATGTAATGGCAGTTTATCTCAAGATGAAGGTTGGACTGAA 3873
 1330 TA 1331
 3874 TA 3875

RESULT 3
 US-10-051-952-2
 ; Sequence 2, Application US/10051952
 ; Patent No. US20020107199A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Walker, Patricia
 ; TITLE OF INVENTION: Methods of Administering Botulinum Toxin
 ; FILE REFERENCE: 2933CIP
 ; CURRENT APPLICATION NUMBER: US/10/051,952
 ; CURRENT FILING DATE: 2002-01-17
 ; PRIOR APPLICATION NUMBER: 09/730,237
 ; PRIOR FILING DATE: 2000-12-05
 ; NUMBER OF SEQ ID NOS: 12
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 2
 ; LENGTH: 3876
 ; TYPE: DNA
 ; ORGANISM: botulinum toxin
 US-10-051-952-2

Query Match 49.0%; Score 657; DB 12; Length 3876;
 Best Local Similarity 68.4%; Pred. No. 9,8e-177;
 Matches 909; Conservative 0; Mismatches 420; Indels 0; Gaps 0;
 QY 3 ATTCACGATGGCCAAACAAATACAAATCCGAAATCCCTGAACAAATATCATCTCTGAACCTGG 62
 DB 2547 AATAAAATATTTAATAAATATATATAGCGAAATTTAAATAATATTTATCTTAAATTAAG 2606
 QY 63 TTCAAAAGACAAACAAATCTGATCGATCTGTCTGGTTCAGGTCTAAAGTTGAAGTATACGA 122
 DB 2607 ATATAGAGATAAATAAATTAATAGATTTATCAGGATATGGAGCAAGGTAGAGTATATGA 2666
 QY 123 CGGTGTTGAAGTGAATGACAGAACCAAGTTCAACTGAGCCTCTCCGCTAACTCTAAGAT 182
 DB 2667 TGGGTCAAGCTTAAATGATAAATCAATTTAAATTAATTAATTAATTAATTAATTAATTAAT 2726
 QY 183 CCGTGTACTCAGAAATCAGAACATCATCTTCAACTCCGTATTCCTCGACTTCCTCTTTTC 242
 DB 2727 TAGAGTCACICAAATCAGAAATATATATTAATTAATTAATTAATTAATTAATTAATTAAT 2786
 QY 243 CTTCTGATTCGTATCCGAAATACAGAGACGAGGTATCCAGAAATATACATCCACAATGA 302
 DB 2787 CTTTGGATAGGATACCTCAATATAGGAATGATATACAAAATATATATCATTAATGA 2846
 QY 303 ATACACCATCATCACTGCATGAAGAAATACTCTGGTGTGAAGATCTCCATCCGCGTAA 362
 DB 2847 ATATACGATATTAATTTGTAAGAAATATTCAGGCTGGAAATATCTATTAGGGGTAA 2906
 QY 363 CCGTATCATCTGGACTCTGATCGATATCAAGGTAAAGCAACCAATCTGTATCTTCGAATA 422
 DB 2907 TAGGATAATATGGACCTTAATTTGATATAAATGGAAACCAACCAATCTGTATTTTGAATA 2966
 QY 423 CAACATCCGTGACACATCTCTGAATACATCAATCACTGCTGCTTCTGTTACCATACCAA 482
 DB 2967 TAACATAGAGAGATATATCAGAGTATATAATAGATGCTTTTGTAACTATTACTAA 3026
 QY 483 TAACCTGAACAAATGCTTAAATCTACATCAAGGTAACTGGAATCTAATACCGACATCA 542
 DB 3027 TAATTTGGATATGCTTAAATTTATTTAATGACGCTTAGAATCAAAATATGATATTA 3086
 QY 543 AGACATCCGTGAAGTTATCGTAACTGCTTAAATCATCTTCAAACTGGACGCTGACATCA 602
 DB 3087 AGATATAGAGAGATATTTGTTAATGTTGAATTAACATTTAATAGTGGTGTATGA 3146
 QY 603 TGTATCCAGTTCATCTGATGGAATTAATCTTCCATCTTCAACACCGAAGTGTCTCAGTC 662
 DB 3147 TAGAACACAAATTTATTTGGATGAATATTTTAGTATTTTAAACGCAATTAATCAATC 3206
 QY 663 CAATATCGAAGAACGGTACAAAGATCCAGTCTTACTCCGAAATACCTGAAAGACTTCTGGGG 722
 DB 3207 AATATATAGAGATATATAAATTCATATATAGCAATAGTATTAAGAGATTTTGGGG 3266
 QY 723 TAATCCGTGTATGATACAAAGAAATATATATTTCAATGCTGGTGAAGTTCATCTCCCTCG 782
 DB 3267 AAATCCTTTAATGATATAAAGAAATATTTATTTAATGCGGGGAATTAATAAGAA 3326
 QY 783 CATCAAACTGAGAGAGACTCTCCGCTGGTGAATCTGCTGCTGCTTCCAAATACAAACCA 842
 DB 3327 TATTAACTAGTGAAGAAATCATCTGTTAGTGAATTAATTAATAGTACGTAAGAAATATATCA 3386
 QY 843 GAACCTCAATACATCAACTACCGGACCTCTACATCGGTGAAAGTTCATCTCATCCCTCG 902
 DB 3387 GAATTCCAATATATAAATTTATAGAAATTTATATATTGGAGAAATTTTATTATAAGAA 3446
 QY 903 CAATCTACTCTGATCCATCAATGATGACATCTAGTGAAGAAAGTACATCTACCT 962
 DB 3447 AGAGTCAAAATCTCAATCTAATAAATGATGATATAGTGAAGAAAGATATATATACATCT 3506
 QY 963 GGACTCTTCAACCTGAATGCGGTGATATACACTTACAGTACAGTACAGTACAGTACAGTAC 1022
 DB 3507 AGATTTGGTACTTCCACTGAGAGAGTGGAGAGTATATGCTTATTAATATTTTAAAGAA 3566

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2Y 1023 AGAAGAAAAGCTTTTCCTGGGTCGAGTCTCTGATTCGGACGAACCTCTACAAACCATCCA 1082
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 3567 GGAAGAAAAAATGGTTTTTATCTATTAAAGTGATTCTTAATGAAATTTTATAAGACTATAGA 3626
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 1083 GATCAAGAATACGACGACGACGACCTACTCTTGCCAGCTGCTTCAAGAAAGATGA 1142
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 3627 ATATAAGAATATGATGAACAGCCATCATATAGTTGTCAGTTCCTTTTAAAAAAGATGA 3686
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 1143 AGAATCTACTGACGAAAATCGGCTGATCGGTGATCCACCGTTTCTAGGAATCTGGTATCGT 1202
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 3687 AGAAAGTACTGATGATATAGGATTGATTGTTATTCATCGTTCTAGGAATCTGGAGTTTT 3746
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 1203 ATTCGAGAAATACAAGACTACTTCTGCATCTCCAATGTCTACTCTGAAGGAAGTTAAACG 1262
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 3747 ACGTAAAAAGTATAAGATTATTTTGTATAGTAAATGTAGTTAAAAAGAGTAAAAAG 3806
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 1263 CAACCGTACAACCTGAAACCTGGGTTGCAATGGCAGTTTCATCCGAAAAGAGGAAGGTTG 1322
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 3807 GAAACATATAAGTCAAAATTTGGGATGTAATTGCAGTTTATTCCTTAAAGATGAAGGTG 3866
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 1323 GACCGAATA 1331
      ||||| |||||
2B 3867 GACTGAATA 3875
      ||||| |||||

RESULT 4
US-09-350-756-6
; Sequence 6, Application US/09350756
; Patent No. US20020034521A1
; GENERAL INFORMATION:
; APPLICANT: U.S. Army Medical Research Institute for Infectious Diseases
; APPLICANT: John S. Lee
; APPLICANT: Peter Pushko
; APPLICANT: Michael D. Parker
; APPLICANT: Jonathan F. Smith
; APPLICANT: Mark T. Dertzbaugh
; APPLICANT: Leonard Smith
; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine
; FILE REFERENCE: 003/124/SAP RIID 98-21
; CURRENT APPLICATION NUMBER: US/09/350,756
; CURRENT FILING DATE: 1999-07-09
; EARLIER APPLICATION NUMBER: US 60/092,416
; EARLIER FILING DATE: 1998-07-10
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Apple Macintosh Microsoft Word 6.0
; SEQ ID NO 6
; LENGTH: 1347
; TYPE: DNA
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: /note="synthetic sequence encoding botulinum neurotoxin"
US-09-350-756-6

Query Match 31.1%; Score 417; DB 10; Length 1347;
Best Local Similarity 60.3%; Pred. No. 9e-109;
Matches 807; Conservative 0; Mismatches 505; Indels 27; Gaps 6;

2Y 5 TCACGATGGCCAAATAACAATCCGAAATCCCTGAACAATATCATCTCGAACCTCGGTT 64
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 20 TCCAGGTCTTCAACAACACTACATCTCCAACATCTCTCTCAAGGCGCATCTCTGCTGCTCT 79
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 65 ACAAGNCAACATCTGATCGATCTGTCTGGTTACGGTGTAAAGTTGAAGTATACGAG 124
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 80 ACCGTGGTGGTGTGCTGTGATCGACTCTCTCGGTTACGGAGCCACATCAACGTGGTTCG 139
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2Y 125 GTGTTGAACCTGAATGAC-----AAGAACCAGTTCAAACTGACCTCTTCGGCTAACTCTA 178
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 140 ACGTCATCTTCAACGACATCGGTGAAGGTGATCTGAAGCTGAACAACCTCCGAGAACTCCA 199
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2Y 179 AGATCCGTTGTTACTCAGATTCAGACATCATCTTCAACTCGGTATTCTCTGCACTTCTG 238
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
2B 200 ACATACCGCCACCAGTCCAAAGTTCGTCAGCTACCTCACTGCTTCCAGTCCACTGTTGACA 259
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Qy	239	TTTCTTCTTGGAATTCGTTATCCGGAAATACAAAGACGAGGTATCCAGAAATTACATCCACA	298
Db	260	TCAACTTTCTGGTTCGGTACCCCAAGTACAAACACACACATCCAGACCTACCTGCAGA	319
Qy	299	ATGAATACACCAATCATCAACTGCATGAAGAAATACTCGGTTGGAAGATCTCCATCCGG	358
Db	320	ACGAGTACACCAATCATCTCTGTATCAGAAGCACTCCGGTTGGAAGGTTCTCCATCAAG	379
Qy	359	GTAAACCGTATCATCTGAGACTCTGATCGATATCAACGGTAAAGACAAATCTGTAATCTTCG	418
Db	380	GAACACCGTATCATCTGAGCCCTGATCGAGCGTCAACGCCAAGTCCAAAGTCATCTTCTTCG	439
Qy	419	AATACAAACATCCGTTGAAGACATCTCTGAATACATCAATCGCTGGTCTTCGTTACCATCA	478
Db	440	AGTACTCCCATCAAGGACACATCTCCGACTACATCACAAGTGGTCTCCATCACCATCA	499
Qy	479	CCAATAAC---CTGAACAATGCTAAATCTTACATCAACGGTAAACTGGAATCTATPACCG	535
Db	500	CCAACGACCGTCTGGGTAAACGCCAACATCTATATCAACGGTTCCCTGAAGAAGTCGCGAGA	559
Qy	536	ACATCAAGACATCCGTTGAAGTATTCGTTAAGCTGGAATCATCTTCAAACTGCAGCGGTG	595
Db	560	AGATCTGAACCTGGACCGGTATCAACTCCTCCACGACATCGACTTCAAGCTGATGAAGT	619
Qy	596	ACATCGATCGTACCCAGTTTCATCTGGATGAATACTTCTCCATCTTCAACACGCAACTGT	655
Db	620	GTACCGACACCCACCAAGTTCTGATCAAGGACTTCAACATCTTCGGTCTGAGCTGA	679
Qy	656	CTCAGTCTCAATATCGNAGACGGTACAGATCCAGTCTTACTCCGATACCTCAAGAGCT	715
Db	680	ACGCCACCGAGGTCTCTCCCTGTACTGGATCCAGTCTCTCCACACACCTCAAGGACT	739
Qy	716	TCGTGGGTATTCGGTGTATACAAAGAAATACTATATGTTCAATGCTGGTAAACAAGA	775
Db	740	TCGTGGGAACCCACTGGTTACGACACCCAGTACTACCTGTTCAACACGGGTATGCAGA	799
Qy	776	ACTCTTACATCAAACTGAAGAAGACTCTCCGGTTGGTGAATCCTGACTCGTTCCAAT	835
Db	800	ACATCTACATCAAGTACTTCTCCAAGGCTCCATGGGTGACACGCGCCCTCGTACCACT	859
Qy	836	ACACACGAACTCTAAATACATCAACTACCGGACCTGTACATCGGTGAAAGTTCATCA	895
Db	860	TCACAAACGCGCG-----CATCACTACCAAGACCTGTACTCTGGGTTCGGTTTCATCA	913
Qy	896	TCGGTCGCAATCTAACTC---TCAGTCCATCAATGATGATCGTACGTAAAGAAGACT	952
Db	914	TCAGAAGGCGCTCCAACCTCCGTTAAATCAACACACGACCAATCGTCCGTGAGGTGACT	973
Qy	953	ACATCTACCTGGACTTCTTCAACCT---GAATCAGGAATCGCGTATACACCTACAAGT	1009
Db	974	ACATCTACCTGAACATCGACACATCTCCGACGAGTCTCCGTTCTAGTCTCTGGTCA	1033
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Db	1034	ACTCCRAGGAGATCCAGACCCAGCTGTTCTGGCCCCAATCAACGACGAGCCCTACCTTCT	1093
Qy	1070	ACACACCATTCGATTCGAAGAAATACAAAGACTACTCTGTCATCTCCAATATGTAAGT	1129
Db	1094	ACGACGCTCTGCGAGTCAAGAAGTACTACGAGAAGCACCTCAACTGTACGATCTCTGT	1153
Qy	1130	TCAGAAGAAGTGAAGAAATCTACTGACGAATTCGGTCTGATCGGTATCCACCGTTTCTAAG	1189
Db	1154	CGGAGGAGACCAAGACCTTCGGACTGTTCCGTATCGGTAAGTTC-----GTCAAGG	1207
Qy	1190	AATCTGTATTCGATTCGAAGAAATACAAAGACTACTCTGTCATCTCCAATATGTAAGT	1249
Db	1208	ACTACGGTTACGTTCTGGGACACTACGACAACTACTTCTGTATCTCCAGTGGTACCTGC	1267
Qy	1250	AGGAAGTTAAACGCAACCGTCAACCTGAAACTGGGTGTCGAATGGCAATTCATCCCGA	1309
Db	1268	GTGCTATCTCCGAGACATCAACAGCTCGCTCTGGGATGTAACTGGCAGTTTATCCACG	1327
Qy	1310	AAGACGAAGTTTGGACCGA	1328

Db 1328 TCACGAGGGTTGGACCA 1346

RESULT 5

US-09-350-756-1

; Sequence 1, Application US/09350756

; Patent No. US20020034521A1

; GENERAL INFORMATION:

; APPLICANT: U.S. Army Medical Research Institute for Infectious Diseases

; APPLICANT: John S. Lee

; APPLICANT: Peter Pushko

; APPLICANT: Michael D. Parker

; APPLICANT: Jonathan F. Smith

; APPLICANT: Mark T. Dertzbaugh

; APPLICANT: Leonard Smith

; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine

; FILE REFERENCE: 003/124/SAP RIID 98-21

; CURRENT APPLICATION NUMBER: US/09/350.756

; EARLIER FILING DATE: 1999-07-09

; EARLIER APPLICATION NUMBER: US 60/092.416

; NUMBER OF SEQ ID NOS: 11

; SOFTWARE: Apple Macintosh Microsoft Word 6.0

; SEQ ID NO 1

; LENGTH: 1338

; TYPE: DNA

; ORGANISM: Artificial

; FEATURE:

; OTHER INFORMATION: /note="synthetic sequence encoding botulinum neurotoxin"

US-09-350-756-1

Query Match

Best Local Similarity 19.6%; Score 263; DB 10; Length 1338;

Matches 639; Conservative 0; Mismatches 525; Indels 21; Gaps 4;

Qy 15 CAACAATCAATTCOGAATCCTGAACAATATCATCTGAACTGCGTTTACAAGCAA 74
 Db 32 CATGATATCATCAAGAATCATCATATCTCATCTGAACTGCGCTACGAATCCAA 91
 Qy 75 CAATCTGATCGATCTCTGTTGGTGGTGGTAAAGTTGAAGTATACGACGGTGT 129
 Db 92 TCACCTGATCGAATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 151
 Qy 130 -GAACATGATCAAGAACAGCAGTCAAACTGACCTCTCCGCTACTTAAAGTCCG 188
 Db 152 CGATCGATCGAAGAACAGCAGTCAAACTGACCTCTCCGCTACTTAAAGTCCG 211
 Qy 189 TACTCAGAAATCAGAAATCATCTTCAACTCCGTTATCTCTGGAATCTCTGTTCT 248
 Db 212 TATCTGAAAGATGCTATCGTATACAACTTATGTACGAAATCTCTCCACTCT 271
 Qy 249 GATTCGTATCCCAATACAGAACGACGCTATCCAGATTTACATCCCAATGATAC 308
 Db 272 GATCCGATCTCCCAATACAGAACGACGCTATCCAGATTTACATCCCAATGAT 322
 Qy 309 CATCATCAATCGATCAAGAAATCAACTCTGTTGGAAGATCTCCATCCGCTGAT 368
 Db 323 CATCATCAATCGATCAAGAAATCAACTCTGTTGGAAGATCTCTGAACTAGG 382
 Qy 369 CATCTGAGCTCTGATCGATCAAGAAATCAACTCTGTTGGAAGATCTCTGAA 428
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 Qy 429 CCGTGAAGATCTCTGAAATCAATCAATCGCTGTTGTTTACATCAATCAATCA 485
 Db 443 GATGATCAATCTCTGAAATCAATCAATCGCTGTTGTTTACATCAATCAATCA 502
 Qy 486 CCGTGAAGATCTCTGAAATCAATCAATCGCTGTTGTTTACATCAATCAATCA 545
 Db 503 TCTGAATCAATCTCTGAAATCAATCAATCGCTGTTGTTTACATCAATCAATCA 562
 Qy 546 CATCCGTGAGTATCTGCTCAAGCTGAATCAATCTCTGAAATCAATCAATCA 605

RESULT 6

US-08-981-087A-6

; Sequence 6, Application US/08981087A

; Patent No. US20020081304A1

; GENERAL INFORMATION:

; APPLICANT: Elmore, Michael J.

; APPLICANT: Mauchline, Margaret L.

; APPLICANT: Minton, Nigel P.

; APPLICANT: Pasechnik, Vladimir A.

; APPLICANT: Titball, Richard W.

; TITLE OF INVENTION: TYPE F BOTULINUM TOXIN AND USE THEREOF

; NUMBER OF SEQUENCES: 6

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: NIXON & VANDERHUYE P.C.

; STREET: 1100 No. US20020081304A1th glebe Rd. 8th floor

; CITY: Arlington

; STATE: VA

; COUNTRY: USA

; ZIP: 22201-4741

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patent In Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/981,087A

; FILING DATE: 27-MAY-1998

; CLASSIFICATION: 424

; PRIOR APPLICATION DATA:

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APPLICATION NUMBER: PCT/GB96/01409
FILING DATE: 12-JUN-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9511909.5
FILING DATE: 12-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Crawford, Arthur R.
REGISTRATION NUMBER: 25,327
REFERENCE/DOCKET NUMBER: 124-688
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-816-4000
TELEFAX: 703-816-4100
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 1313 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-08-981-087A-6

Query Match 18.18; Score 242.6; DB 8; Length 1313;
Best Local Similarity 56.68; Pred. No. 3.3e-59;
Matches 603; Conservative 0; Mismatches 429; Indels 33; Gaps 7;

QY 15 CAACAAATACAAATCCGAAATCCTGAACAATATCATCTGTAACCTGCGTTTACAAAGACAA 74
DB 47 CAACAACTGTACAAAAATCAAGAACAACTATCTCTGACATGCGTTTACGAAAAACAA 106
QY 75 CAATCGATCGATCTGCTGTTACGCGTCTAAAGTTGAAGTATACGACGCTGTGACT 134
DB 107 CAATTCATCGACATCTCTGCTATGCTTCTTAACATCTCTATCAACGCTGACGCTACAT 166
QY 135 GAA-----TGACAGAACCAAGTTCACAACTGACCTCTCCGCTAACCTCTAAGATCCGCTG 188
DB 167 CTACTCTACTACCCGACCAAGCTTCGGTATCTACTCTCTCTCTCTCTCTCTCTCTCTCTCT 226
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DB 287 GGTTCGATCTCCGAAATCTCTCAACAAAGTTAACTCTGA-----ACACGAAATACAC 337
QY 309 CATCATCAACTGCAT---GAAGATTAATCTCTGTTGGAAGATCTCCATCCCGGTAACCG 365
DB 338 TATCATCGACTGCATCCGCTACACAACTCTGTTGGAAGATCTCTCTCTCTCTCTCTCTCTCTCT 397
QY 366 TATCATCTGACTGATGATATCAACGGAAGACCAAACTCTGATTTCTCGAATACAA 425
DB 398 AATCATCTGGACTCTGCAGGACACTGCTGTTGAACACACGAAACTGTTTCTACTACAC 457
QY 426 CATCCGTGAAGACATCTCTGATATCAATCGGTTCTTCTGTTTACCATCAACATAA 485
DB 458 TCAGATGATCTCTATCTCTGACTACATTAATAAATGGATCTCTGTTTACTACTACATAAA 517
QY 486 C---CTGACATCTGTAATATCTATCAACGGAAGTAACTGGAATCTAATACCGACATCAA 542
DB 518 CCGTGGGTGTAATCTGATCTATCATACACGGAAGTAACTGATCGATGAAATCTATCTC 577
QY 543 AGACATCCGTGAAGTTATCGCTAAAGGTTAAATCATCTCTCAAACTGGACGCTGATACGA 602
DB 578 TAACCTGGGTGATCCACCGTTCTTGACAACTCTGTTGGAAGTCTGTTGTTGTTGTTGTTGTTG 637
QY 603 TCGTACCCAGTCTGATGTAATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 662
DB 638 ---CAGCGGTACGTTGGTATCCGTTTACTTCAAGTTTTCGACATGAACTGGGTAAAC 694
QY 663 CAATATCGAAGAACGTTAGAACATCCAGTCTTCTACTCCGAAATACCTGAAAGACTTCTGSGG 722
DB 695 TGAATCGAATCTGTACTCTGACGAACCGGACCGCTCTATCTCTGTAAGACTTCTCTGSGG 754

QY 723 TAATCCGCTGATGTACAAACAAAGAAATACTATATGTTTCAATGCTGTGTAACAAAGACTCTTA 782
DB 755 TAATCTACTCTGTACAAACAAAGAAATGTTTACTACTGCTGAACTGCTCCGAGCTGACAAATC 814
QY 783 CATCAAACTGAAGAAAGACTCTCCGGTGGTGAATCCCTGACTCTGTTCCAAATATACAAACA 842
DB 815 TATCACTCAGAAACTCTTAATCTCTGAACTCAACCAACGACGCGTGGT-----GTTTATCA 868
QY 843 GAACTCTAAATATACATCAACTACGCGGACCTGATACCTGCGTGAAGAAAGTTTCATCATCCGCTG 902
DB 869 GAAACCTAATATCTCTCTTAACACTCTCTCTGATACCTGGTGGTGAAGTTATCATCCGTA 928
QY 903 CAA---ATCTAACTCTCAGTCCATCAATGATGACATCGTACGTAAGTAAGAAAGACTACATCTA 959
DB 929 AAACGGTTCTACTGACATCTCTAACACTGACAACTTCGTTACGTAAGAAAGACTGCTGCTTA 988
QY 960 CTTGGACTTCTTCAACCTGATCAGGAATGCGGTGATATACCTACACCTACAAAGTACTTCAAGAA 1019
DB 989 CATCAACGTTGTTGACCGTGACGTTGAATACCGTCTCTGATCGCTGACATCTCTATCCGTA 1048
QY 1020 AGAAGAGAAAGAGCTTTTCTGCTCGGCTCGATCTCTGATTCGCGAGA 1064
DB 1049 ACCGGAATAATCATCAAACTGATCCGCTACTTCTTAACCTTAACAA 1093

RESULT 7
US-09-350-756-5
; Sequence 5, Application US/09350756
; Patent No. US20020034521A1
; GENERAL INFORMATION:
; APPLICANT: U.S. Army Medical Research Institute for Infectious Diseases
; APPLICANT: John S. Lee
; APPLICANT: Peter Pushko
; APPLICANT: Michael D. Parker
; APPLICANT: Jonathan F. Smith
; APPLICANT: Mark T. Dertzbaugh
; APPLICANT: Leonard Smith
; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine
; FILE REFERENCE: 003/124/SAP RIID 98-21
; CURRENT APPLICATION NUMBER: US/09/350,756
; EARLIER FILING DATE: 1999-07-09
; EARLIER FILING DATE: 1998-07-10
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Apple Macintosh Microsoft Word 6.0
; SEQ ID NO 5
; LENGTH: 1317
; TYPE: DNA
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: /note="synthetic sequence encoding botulinum neurotoxin"
US-09-350-756-5

Query Match 18.18; Score 242.6; DB 10; Length 1317;
Best Local Similarity 56.68; Pred. No. 3.3e-59;
Matches 603; Conservative 0; Mismatches 429; Indels 33; Gaps 7;
QY 15 CAACAAATACAAATCCGAAATCCTGAACAATATCATCTGTAACCTGCGTTTACAAAGACAA 74
DB 48 CAACAGCTGTACAAGAGATCAAGGACAACTCCATCTTGGACATGAGATACGAAACAA 107
QY 75 CAATCGATCGATCTGCTGTTACGCGTGAAGTTGAAGTATACGACGCTGTTGAAC 134
DB 108 TAAGTTTCATCGACATCTCCGGTTCGTTTCCAACTATCCATCAACGCTGACGCTACAT 167
QY 135 GAATGACAAG-----AACGAGTTCAAACTGACCTCTTCCGCTAACTCTAAGATCCGCTG 188
DB 168 CTACTCCCAATGAACCACTCTCGAATCTACTCTCCCAAGCTTCGAGGTTCAACAT 227
QY 189 TACTCAGATCAGACATCATCTTCAACTCCGTTATCTCTGACACTCTCTGTTTCTCTCTG 248
DB 228 CGCTCAGAACCAAGACATCATCTTACAAAGGAGATACCAAGACTTCTCTCTCTCTCTG 287

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; EARLIER APPLICATION NUMBER: US 60/092,416
; EARLIER FILING DATE: 1998-07-10
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Apple Macintosh Microsoft Word 6.0
; SEQ ID NO 10
; TYPE: DNA
; LENGTH: 702
; ORGANISM: Clostridium botulinum
; FEATURE:
; US-09-350-756-10

Query Match      16.5%; Score 221.6; DB 10; Length 702;
Best Local Similarity 61.1%; Pred. No. 2.2e-53;
Matches 419; Conservative 0; Mismatches 249; Indels 18; Gaps

QY 15 CAACAATACAAATTCGGAATTCCTGCAACATATCATCTCTGAACTGGTTACAAACACAA 74
   || ||||| || || || || || || || || || || || || || || || || || ||
Db 24 CACTGAATACATCAAGAACATCATCAATACCTCCATCTCTGAACTGGCTACGAATCCAA 83
   || ||||| || || || || || || || || || || || || || || || || || ||
QY 75 CAAATCGATCATCTGTCTGGTTACGGTGCTAAAGTTCAAGATATACGACGGTGT----- 129
   || ||||| || || || || || || || || || || || || || || || || || ||
Db 84 TCACCTGATCGACCTGTCTCGTACGTTCCAAATACATACATCGGTTCTAAAGTTAACT 143
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QY 130 -GAATCGAATGACGAAGAACCGAGTTCAAATGACCTTTCGCTAACTCTAGATCGGTGT 188
   || ||||| || || || || || || || || || || || || || || || || || ||
Db 144 CGATCCGATCGACGAAGAAATCAGATCCGAGTGTTCAAATCTGGAATCTTCCAAAATCGAAT 203
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QY 189 TACTCAGAAATCAGAACATCATCTTCAACTCCGATATTCCTGGCACTTCTCTGTTCCCTCTG 248
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Db 204 TATCTCTGAAGATGCTATCGTATACAACTCTATGACGAAAACCTTCCCACTCCTCTCTG 263
   || ||||| || || || || || || || || || || || || || || || || || ||
QY 249 GATTCGATTCGCGAAATACGAAGAACGAGGTATCCAGAAATTCATCCACATGAAATACAC 308
   || ||||| || || || || || || || || || || || || || || || || || ||
Db 264 GATCGGTATCCGGAATACTTCAACTCC-----ATCTCTCTGAACAAATGAATACAC 314
   || ||||| || || || || || || || || || || || || || || || || || ||
QY 309 CATCATCAACTGCATGAAGATAACTCTGGTTGGAAGATCTCCATCCGCGGTAAACGGTAT 368
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Db 315 CATCATCAACTGCATGAAGAACAAATCTCTGGTTGGAAGATCTCTGAACTACGGTGAAT 374
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QY 369 CATCTGGACTCTGATCGAATCAACGGTAGACCAAAATCTGTATCTTTCGAATACAAAT 428
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Db 375 CATCTGGACTCTGACGAGACACTCAGGAAATCAACAGCGGTGTGTATTCAAATACTCTCA 434
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QY 429 CCGTGAAGACATCTCTGAATACATCAATCGCTGGTTCTTCGTTACCATCAACATAA--- 485
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Db 435 GATGATCAACATCTCTGACTACATCAATCGCTGGATCTTCGTTACCATCCCAACATCG 494
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QY 486 CCTGAACAATGCTAAATCTACATCAACGSTAAACTGGAATCTTAATACCGACATCAAGA 545
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Db 495 TCTGAATAACTCCAAATCTACATCAACGCGCGTGTGATCGACCAAGAAACGATCTCCAA 554
   || ||||| || || || || || || || || || || || || || || || || || ||
QY 546 CATCCGTTGAAGTTATCGCTCAACGGTGAATCATCTTCAAATCGACGGTGACATCGATCG 605
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Db 555 TCTGGGTAACTCCACGCGTCTCTTAATACATCATGTTTCAACTGGACGGTGTGCTGCAC 614
   || ||||| || || || || || || || || || || || || || || || || || ||
QY 606 TACCCAGTTTCATCTGGATGAATACTTCTCCATCTTCAACACCGAACTGTCTCAGTCCAA 665
   || ||||| || || || || || || || || || || || || || || || || || ||
Db 615 TCACCGCTACATCTGGATCAAAATACATCAATCTGTTCGACAAAGAACTGAACGAAAAAGA 674
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Db      615  TCACCGCTACATCTGGATCAATACTTCAATCTGTTCGCACAAAGAACTGAACGAAAAAGA 674
Qy      666  TATCCGAAGAACGGTACAAAGATCCAGT 691
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Db      675  AATCAAGAACCTGTACGCACACCACT 700

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RESULT 9
 US-10-051-952-9
 ; Sequence 9, Application US/10051952
 ; Patent No. US20020107199A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Walker, Patricia
 ; TITLE OF INVENTION: Methods of Administering Botulinum Toxin
 ; FILE REFERENCE: 2933CIP
 ; CURRENT APPLICATION NUMBER: US/10/051,952

; CURRENT FILING DATE: 2002-01-17
 ; PRIOR APPLICATION NUMBER: 09/730,237
 ; PRIOR FILING DATE: 2000-12-05
 ; NUMBER OF SEQ ID NOS: 12
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 9
 ; LENGTH: 3894
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic
 ; OTHER INFORMATION: primers used to introduce Stu I and EcoR I
 ; OTHER INFORMATION: Restriction sites into the 5' and 3' ends of the
 ; OTHER INFORMATION: Bont/A-L chain gene fragment
 ; US-10-051-952-9

Query Match 15.38; Score 218.6; DB 12; Length 3894;
 Best Local Similarity 51.18; Pred. No. 4e-52;
 Matches 680; Conservative 0; Mismatches 624; Indels 27; Gaps 6;
 16 AACAAATACAATCCGAATCCTGAACAATATCATCTCGTGAACCTCGCTTACAAAGACAAC 75
 2575 AATAATTATAGTAATATAGTAGTAATGCTATTTAAGTTAAGTTATAGGGTGG 2634
 76 AATCGATCGATCTCTGGTACGGTCTAAAGCTGAAGTATACGAGGTGTGAAGTG 135
 2635 CGTTTAAATAGATCACTCGGATATGGTCAACTATGAATGATAGTTCAGATGTATCTT 2694
 136 AATGA-----CAAGAACCGATTCACAACTGACCTCTCCGCTAACTCTAGATCCCGTGT 189
 2695 AATGATATAGGAATGGTCAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2754
 190 ACTCAGATCAGAAATCATCTCACTCCGCTATCTCCGCTAACTCTAGATCCCGTGT 249
 2755 CATCAAGTAAATCGTTGTATATAGTAGTAGTGTGTTGATTAATTTAGCATTAACTTTGG 2814
 250 ATTCGATCCCGAATACAGACGAGTATCCAGATTAATTAATTAATTAATTAATTAATTAAT 309
 2815 GTAAGGACTCCTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 2874
 310 ATCATCAATCGATGAAGAATCACTCTGGTGGAGATCTCCATCCCGGTGAACCGTATC 369
 2875 ATAATTAGTTGTATAAATAAGTCACTCAGGATGAAGATGATCTATTAAAGGAAATAGAATA 2934
 370 ACTCGACTCAGTATCACTCACTCACTCACTCACTCACTCACTCACTCACTCACTCACTCA 429
 2935 ATATGACATTAATAGATTAATCAAAATCACTCACTCACTCACTCACTCACTCACTCACTCA 2994
 430 CGTGAAGACATCTCTGAATACATCAATCGCTGGTCTCTCGTTACCATCACTCACTCACTCA 486
 2995 AAGATAATATATCAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 3054
 487 CTGAACATGCTTAATCTACATCACTCACTCACTCACTCACTCACTCACTCACTCACTCACTCA 546
 3055 TTAGGTAAAGCAAAATATTATATAATGAAGTTGAAAGAAAGTGAAGAAATTTTAAAC 3114
 547 ATCCGTGAAGTATCTCACTCACTCACTCACTCACTCACTCACTCACTCACTCACTCACTCA 606
 3115 TTAGATAGATTAATCTAGTATATAGTATAGTATAGTATAGTATAGTATAGTATAGTATAG 3174
 607 ACCGATTCATCTGGATGAATATCTCTCCATCTTCACTCACTCACTCACTCACTCACTCACTCA 666
 3175 ACTAAATTTGTTGGATTAAGATTTTAAATTTTGTAGAGAAATTAATGCTACAGAA 3234
 667 ATCGAAGACGGGTACAGATCAGTCTTACTCCGATACCTGAAAGACTTCTGGGGTAAAT 726
 3235 GTATCTCTACTATATGGATTCATCACTCACTCACTCACTCACTCACTCACTCACTCACTCACT 3294
 727 CCCTGATGTACAAAGAAATATCTATATGTTCAATGCTGTGTGTGTGTGTGTGTGTGTGTGTGT 786
 3295 CCCTTAAGATAGGATACAAATCACTATCTGTTTAAATCAAGGTATGCAAAATATCTATATA 3354
 787 AAATCAAGAAAGACTCTCCGGTGTGTGAATCCCTGACTCGTTCCTCAATACCAACAGAAC 846

Db 3355 AAGTATTATTAGTAAGCTTCTATGGGGRAACTGCACCAGGTACAAACCTTAATAA---- 3410
 Qy 847 TCTAAATACATCAACTACCGCGCTGTACATCGGTGAAAGTTTCATCATCCGTCGCCAA 906
 Db 3411 --TCAGCAATAAATTTATCAAAATTTATCTTTGGTTTACGATTTTATATAAAAGCA 3468
 Qy 907 TCTAACTCTCAGTCCATCAATGATGAC---ATCGTACGTAAAGAAGACTACATCTACCTG 963
 Db 3469 TCAATTTCTCGAATATAAATAATGATAATATAGTCAGAGAAGAGATTATATATATCTT 3528
 Qy 964 GACTTCTTCAACCTGAATCAGGAATG---CCGTGTATACACCTACAGTACTTCAAGAA 1020
 Db 3529 AATATTGATATATTTCTGATGAATCTAGAGAGATATATTTTGTGTAATTTCTAAAGAA 3588
 Qy 1021 GAAGAAGAAAGCTTTTCTCGCTCCGATCTCTGATCCGCAAGACTCTACAAACCATC 1080
 Db 3589 ATTCAACTCAATTAATTTTAGCACCATTAATGATGATCTCTAGTCTATGATGATCTA 3648
 Qy 1081 CAGATCAAGAAATACGACGACCGACCTACTCTTCCAGCTGCTGTTCAGAAAGAT 1140
 Db 3649 CAATAAATAAATATTATGAATAAACAACATATAATTTGTCAGATCTTTGCGAAAGAT 3708
 Qy 1141 GAAGAATCTACTGACGAATCGGTCTGATCGGTATCCACGGTTTCTACGAATCTGATCT 1200
 Db 3709 ACTAAACATTTGGCGTCTTTGGAT-----TGGTAATTTGTTAAGATTAATGATAT 3762
 Qy 1201 GTATTCGAAGAAATACAAAGACTACTCTGATCTCTCAATGATGATGATGATGATGATGAT 1260
 Db 3763 GTTTGGATACCTATGATATAATTTTTCATAGTCACTGATGATGATGATGATGATGATGAT 3822
 Qy 1261 CGCAACCGTACACCTCAACTCGGTGCAATGCGAGTTCCCGAAAGACGAGGT 1320
 Db 3823 GAAATATAAATAATTAAGTTGGATGAATTTGCAATTCATCCCGTGGATGAGGA 3882
 Qy 1321 TGGACCGAATA 1331
 Db 3883 TGGACAGAAATA 3893

RESULT 10
 US-09-350-756-4
 ; Sequence 4, Application US/09350756
 ; Patent No. US20020034521A1
 ; GENERAL INFORMATION:
 ; APPLICANT: U. S. Army Medical Research Institute for Infectious Diseases
 ; APPLICANT: John S. Lee
 ; APPLICANT: Peter Pushko
 ; APPLICANT: Michael D. Parker
 ; APPLICANT: Jonathan F. Smith
 ; APPLICANT: Mark T. Dertzbaugh
 ; APPLICANT: Leonard Smith
 ; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine
 ; FILE REFERENCE: 003/124/SAP RIID 98-21
 ; CURRENT APPLICATION NUMBER: US/09/350,756
 ; EARLIER FILING DATE: 1998-07-09
 ; EARLIER FILING DATE: 1998-07-10
 ; NUMBER OF SEQ ID NOS: 11
 ; SOFTWARE: Apple Macintosh Microsoft Word 6.0
 ; SEQ ID NO 4
 ; LENGTH: 1400
 ; TYPE: DNA
 ; ORGANISM: Artificial
 ; FEATURE:
 ; OTHER INFORMATION: /note="synthetic sequence encoding botulinum neurotoxin"
 ; US-09-350-756-4

Query Match 11.98; Score 160; DB 10; Length 1400;
 Best Local Similarity 54.58; Pred. No. 1e-35;
 Matches 438; Conservative 0; Mismatches 345; Indels 21; Gaps 5;
 Qy 15 CAACAATAACAATTCGGAATCCTGAAATATCATCTGAACTGCTGCTTACAAAGCAA 74

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120 CAACAAAGTCTTCAAGAGAAATTAAGTCTTCTTCGGTTTAAACATGAGATACAAAGAA 179
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; EARLIER FILING DATE: 1998-07-10
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Apple Macintosh Microsoft Word 6.0
; SEQ ID NO 9
; LENGTH: 1327
; TYPE: DNA
; ORGANISM: Clostridium botulinum
; FEATURE:
US-09-350-756-9

Query Match          9.2%; Score 123; DB 10; Length 1327;
Best Local Similarity 50.2%; Pred. No. 3.3e-25;
Matches 396; Conservative 0; Mismatches 375; Indels 18; Gaps 3;

QY 20 AATCAATTCGGAATCCTGAACAATATCATCTCGTGAACCTCGCTTACAAAGACAACAATC 79
DB 29 AATATTAAGAATATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 88
QY 80 TGATCGATCTCTCTGTTAGCGGTGCTAA-----GTTGAAGTATACGAGCGGTGTAAC 133
DB 89 TAATAGACTTATCTAGGTATGTCATCAAAAATAAATATTTAGTAAAGTAAATTTTGTATC 148
QY 134 TGAATGACAAGAACAGTTCAAACTGACCTTCCTCGCTAACTCTAAGATCCGCTGTACTC 193
DB 149 CAATAGATAAATAATCAATTCATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 208
QY 194 AGAATCAGAATCATCTTCAACTCCGTATTCCTGGACTTCTCTGTTCTCTGTTCTGATTC 253
DB 209 TAAAAAATGCTATTGTATATAATAGTATGATGAAAAATTTTACTAGTCTAGCTTTGGATAA 268
QY 254 GTATCCGGAATACAAAGACGCGGTATCCAGATTAATCAATCCCAATGAATACACCATCA 313
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QY 314 TCAACTGCATGAAGAATAAATCTCTGTTTGGAGATCTCCATCCGCGGTAAACCGTATCATCT 373
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QY 374 GGACTCTCATGATATCAACGGTAAAGACCAATCTGTTATCTTCGATACAAATCCGCTG 433
DB 380 GGACTTTACAGGATCTCAGGAAATAAACAAGAGTAGTTTTAAATACAGTCAAAATGA 439
QY 434 AAGACATCTCTGAATATACATCAATCGCTGGTTCTTCGTTTACCATCACCAATAA---CCTGA 490
DB 440 TTAATATATCAGATTAATTAACAGATGGATTTTGTAACTATCACTAATAATAGATTAA 499
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DB 500 ATACTCTAAAATTTATATAAATGGAAGATTAAATAGATCAAAAACCAATTTCAAATTTAG 559
QY 551 GTGAAGTTATCGCTAACGGTGAATCATCTTCAAACTGGACGGTGAATCGATCGATCC 610
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QY 671 AAGAAGGTACAAAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTGGGGTAAATCCGC 730
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QY 731 TGATGTACAACAAGAATATATATATATATATATATATATATATATATATATATATATATAT 790
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QY 791 TGAAGAAAG 799
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RESULT 12
US-09-288-326-10

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US-09-350-756-9
; Sequence 9, Application US/09350756
; Patent No. US20020034521A1
; GENERAL INFORMATION:
; APPLICANT: U.S. Army Medical Research Institute for Infectious Diseases
; APPLICANT: John S. Lee
; APPLICANT: Peter Pushko
; APPLICANT: Michael D. Parker
; APPLICANT: Jonathan F. Smith
; APPLICANT: Mark T. Dertzbaugh
; APPLICANT: Leonard Smith
; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine
; FILE REFERENCE: 003/124/SAP RiD 98-21
; CURRENT APPLICATION NUMBER: US/09/350,756
; EARLIER FILING DATE: 1999-07-09
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; Sequence 10, Application US/09288326
; Patent No. US20010018049A1

GENERAL INFORMATION:

; APPLICANT: Kei Roger Aoki

; APPLICANT: George Sachs

; TITLE OF INVENTION: Method and Compositions for the

; TITLE OF INVENTION: Treatment of Pancreatitis

; FILE REFERENCE: 17282

; CURRENT APPLICATION NUMBER: US/09/288,326

; CURRENT FILING DATE: 1999-04-08

; NUMBER OF SEQ ID NOS: 11

; SOFTWARE: FastSeq for Windows Version 3.0

; SEQ ID NO 10

; LENGTH: 4835

; TYPE: DNA

; ORGANISM: Clostridium botulinum

US-09-288-326-10

Query Match 9.2%; Score 123; DB 10; Length 4835;

Best Local Similarity 50.2%; Pred. No. 6.6e-25;

Matches 396; Conservative 0; Mismatches 375; Indels 18; Gaps 3;

QY 20 AATACAAATCCGAATCTCGAATATATCATCTCGTAACCTCGGTACAGACACAATC 79

DB 2960 AATATATTAAGAATATATTAATCTCTATATTGAATTTAAGATATGAAGTAATCAT 3019

QY 80 TGATCGATCTGTCTGGTTACGGTGCTAAA-----GTTGAAGTATACGACGGTGTGAAC 133

DB 3020 TAATAGACTTATCTAGGTATGCATCAAAATAAATAATTTGGTAGTAAAGTAATTTTGATC 3079

QY 134 TGAATGACAAGACAGTTCGAATGACCTCTCCGCTAACTCTAAGATCCGTGTACTC 193

DB 3080 CAATAGATAAAATCAAAATCAATTAATTAATTTAGAAAGTAGTAAATTTGAGTAATTT 3139

QY 194 AGAATCAGAACATCATCTTCAACTCCGTTATTCCTCGGACTTCTCTGTTCCTCTGGATTC 253

DB 3140 TAAAAAATGCTATCTATATAATAGTATGTATGAATAATTTTAGTACTAGCTTTTGGATAA 3199

QY 254 GTATCCGGAATACAGAACGAGTATCCAGATATATATCCCAAGTAATGATACACATCA 313

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QY 314 TCAACTGATGAAGAAATCACTCTGGTTGGAAGATCTCCATCCGCGGTAAACCGTATCATCT 373

DB 3251 TAAATTTGTGAAAAAATTAATTCAGGATGGAAGTATCACTTAATTTGGTGAATAATCT 3310

QY 374 GGCCTCTGATCATATACAGGTAGACCAATCTGTATCTTCGAATACAAATCCGTCG 433

DB 3311 GGACTTTACAGGATCTCTCAGGAATTAACAAGAGTAGTTTAAATACAGTCAAAATGA 3370

QY 434 AAGACATCTCTGAATACATCAATCGCTGGTTCTTCTGTTTACCATCAACCAATAA---CCTGA 490

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QY 491 ACAATGCTAAATCTACATCAACGGTAACTGGGAATCTTAATACCGCATCAAGACATCC 550

DB 3431 ATAACCTCTAAATTTATATAAATGGAAGTAAATAGATCAAAAACCAATTTTCAAAATTAG 3490

QY 551 GTCAAGTTATCGTAAACGGTGAATCATCTTCAAACTGACGGTACATCGTACCC 610

DB 3491 GTAATATTCATGCTAGTATAATATATATGTTTAAATAGATGGTTGTAGATACACATA 3550

QY 611 AGTTCATCTGGATGAATACCTTCTCCATCTTCAACACCGAACTGTCAGTCCCAATATCG 670

DB 3551 GATATATTTGGATAAAATATTTTAATCTTTTGTGAAGGAATTAATTAAGAAAAGAAATCA 3610

QY 671 AAGACGGTACAGATCCAGTCTTACTCGGAATACCTGAAGACTCTCGGGTAAATCCGC 730

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QY 791 TGAAGAAAG 799

DB 3731 TAAATAATG 3739

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US-10-051-952-1

; Sequence 1, Application US/10051952

; Patent No. US20020107199A1

; GENERAL INFORMATION:

; APPLICANT: Walker, Patricia

; TITLE OF INVENTION: Methods of Administering Botulinum Toxin

; FILE REFERENCE: 2933CIP

; CURRENT APPLICATION NUMBER: US/10/051,952

; CURRENT FILING DATE: 2002-01-17

; PRIOR APPLICATION NUMBER: 09/730,237

; PRIOR FILING DATE: 2000-12-05

; NUMBER OF SEQ ID NOS: 12

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 1

; LENGTH: 3891

; TYPE: DNA

; ORGANISM: botulinum toxin

US-10-051-952-1

Query Match 8.9%; Score 119.8; DB 12; Length 3891;

Best Local Similarity 49.9%; Pred. No. 4.8e-24;

Matches 394; Conservative 0; Mismatches 377; Indels 18; Gaps 3;

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DB 2603 AATATTTAAGAATATTTAATTAATCTCTATATTGAATTTAAGATATGAAGTAATCAT 2662

QY 80 TGATCGATCTGTCTGGTTACGGTGCTAAA-----GTTGAAGTATACGACGGTGTGAAC 133

DB 2663 TAATAGACTTATCTAGGTATGCATCAAAAATAAATATTGGTAGTAAAGTAATTTTGATC 2722

QY 134 TGAATGACAAGAACAGTTCAAACTGACCTCTCCGCTAACTCTAAGATCCGTGTACTC 193

DB 2723 CAATAGATAAAATCAAAATCAATTCATTTAATTTAGAAAGTAGTAAATTTGAGTAATTT 2782

QY 194 AGAATCAGAACATCATCTTCAACTCCGTTATTCCTGGACTTCTCTGTTCCTCTGGATTC 253

DB 2783 TAAAAAATGCTATTGTATATATATATAGTATGATGAAAAATTTTAGTACTAGCTTTGGATAA 2842

QY 254 GTATCCGGAATACAGAACGACGATCCAGATTCACATCCCAATGAATACACCATCA 313

DB 2843 GAATTCCTAAGTATTTTAAACAGTATAGTCTAAAT-----AATGAATATACAATAA 2893

QY 314 TCAACTGATGAAGAAATAACTCTGTGTTGGAAGATCTCCATCCGCGGTAAACCGTATCATCT 373

DB 2894 TAAATTTGTGAAAAAATAATTCAGGATGGAAGTATCACTTAATTTATGTTGAATAATCT 2953

QY 374 GACATCTGATCATATCAACGGTAAAGACCAATCTGTATCTTCGAATACAAACATCCGTCG 433

DB 2954 GGACTTTACAGGATCTCTCAGGAATAAACAAGAGTAGTTTTTAAATAGAGTCAATGA 3013

QY 434 AAGACATCTCTGAATACATCAATCGCTGGTTCTTCTCGTTACCATCAACCAATAA---CCTGA 490

DB 3014 TTAATATATCAGATTATATAAACAGATGGATTTTGTAACTATCACTAATAATAGATTAA 3073

QY 491 ACAATGCTAAATCTACATCAACGGTAAACTGGAATCTAATACCGCATCAAGACATCC 550

DB 3074 ATAACCTCTAAATTTATATAAATGGAAGATTAAATAGATGAAAAACCAATTTTCAAAATTAG 3133

QY 551 GTGAAGTTATCCCTAACCGTGAATCATCTTCAAACTGGACGGTGCATCGATCGTACCC 610

DB 3134 GTAATATTCATCTAGTAAATATATATTAATTTAATTTAGATGGTTGTAGAGATACACATA 3193

QY 611 AGTTCATCTGGATGAATATCTTCTCCATCTTCAACACCGAACTGTCAGTCCCAATATCG 670

DB 3194 GATATATTTGGATAAAATATTTTAAATCTTTTGTAGGAATTTAAATGAAAAAGAAATCA 3253

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QY	478	ACCAATACCTGAACAAATGCTAAAATCTACATCAACGGTAAACTGGAAATCTAATACCGAC	537
Db	526	AACAACATGATGGGTACATGAAAGACTTACATCAACGGTAACTGATTCGACACCATCAAG	585
QY	538	ATCAAGACATCCGTGAAGTTATCGGTAAACGGTGAATCATCTTCAAACTGGACGGTGAC	597
Db	586	GTCAAGGAGTTGACGGGTATCAACTTCTCCAAGACCATCACCTTCGAGATCAACAAGATC	645
QY	598	ATCGATCGTACCCAGTTCATC-----TGGATGAATACTTTC	633
Db	646	CCAGACACCGGTTGTGATCACTCCGACTCCGACATATCAACATGTGGATGGTACGTC	705
QY	634	TCATCTTCAACACCGCAAGTGTCTCAGTCCATATATCGAAGACGGTTACAAGATCCAGTCT	693
Db	706	TACATCTTCCCAAGGAGTTGGACGGTAAGGACATCAACATCCTGTTCACATCCTTTGCAG	765
QY	694	TACTCCGAATACCTGAAAGACACTTCTCGGGTAACTCCGCTGATGTACAAACAAGATACTAT	753
Db	766	TACACCAACGCTGTCGAAGCACTACTGGGTAACGACCTGAGATCAACAAGAGTACTAC	825
QY	754	ATGTTCAATCTGTTGAACAGAACTCTTACAT	785
Db	826	ATGGTCACATCGACTACTTGACACATACAT	857
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; Sequence 7, Application US/09350756			
; Patent No. US20020034521A1			
; GENERAL INFORMATION:			
; APPLICANT: U.S. Army Medical Research Institute for Infectious Diseases			
; APPLICANT: John S. Lee			
; APPLICANT: Peter Pushko			
; APPLICANT: Michael D. Parker			
; APPLICANT: Jonathan F. Smith			
; APPLICANT: Mark T. Dertzbaugh			

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; APPLICANT: Leonard Smith
; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine
; FILE REFERENCE: 003/124/SAP RIID 98-21
; CURRENT APPLICATION NUMBER: US/09/350,756
; CURRENT FILING DATE: 1999-07-09
; EARLIER APPLICATION NUMBER: US 60/092,416
; EARLIER FILING DATE: 1998-07-10
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Apple Macintosh Microsoft Word 6.0
; SEQ ID NO 7
; LENGTH: 2452
; TYPE: DNA
; ORGANISM: Clostridium botulinum
; FEATURE:
;
US-09-350-756-7

Query Match 7.9%; Score 105.8; DB 10; Length 2452;
Best Local Similarity 49.9%; Pred. No. 3.5e-20;
Matches 394; Conservative 0; Mismatches 367; Indels 28; Gaps

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Db 1174 AATATATTAAGAATATATTAATACTCTCATATTTGAATTAAGATATGAAGCTAATCAT 1233
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QY 80 TGATCATCTGCTCGGTTAGCGTGCTAAA-----GTTGAAGTATACGACGGTGTTGAAC 133
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Db 1234 TAATAGACTTATCTAGGTATGCATCAAAATAAATATTCGTAGTAAGCTAAATTTTGATC 1299
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QY 134 TGAATGACAAAGACCGAGTTCAAACTGACCTCTCCCGCTAAGCTCTAGATCCGCTGTACTC 193
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Db 1294 CAATAGATAAAAAATCAAAATCAATTTATTTAATTTAGAAAAGTAGTAAAAATTGAGGTAATTT 1353
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QY 194 AGAATCAGAACATCATCTTCAACTCGGTATTCTCTGGACTCTCTGTTTCTCTCTGGATTC 253
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QY 1354 TAAAAAATGCTATTGTTATATATATATATATATATATATATATATATATATATATAT 1413
Db      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 254 GTATCCCGAATATCAAGACGACGGTATCCAGAAATATACCCACAATGAATACACCATCA 313
Db      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1414 GAATTCCTTAAGTATTTTAAACAGTATAAGTCTAAAT-----AATGAATATACAAATA 1464
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Db      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1465 TAATTTGATGGAAATAATTCAGGATGGAAAGTATCACTTAATTAATGGTGAATAATCT 1524
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QY 434 AAGACATCTCTGAATACATCAATCGCTGGTCTTCGTACCATCCCAATAA---CCTGA 490
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QY 551 GTGAAGTTATCGCTAACGGTGAATCACTTCAACTGGAGCGGTGACATCGATCGTACCC 610
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QY 671 AAGAAGGTACAAATCCAGTCTTACTCCGAAATACCTGAAGACTTCTGGGGTAATCCCG 730
Db      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
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QY 1875 TACATATGATTAACCATACATATATGTTAAATTTATATGATCCAAATAAATATGTCGATG 1934
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GenCore version 5.1.3
Copyright (c) 1993 - 2002 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

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78: /cgn2_6/ptodata/1/pna/US6034_COMB.seq.*
79: /cgn2_6/ptodata/1/pna/US6035_COMB.seq.*
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81: /cgn2_6/ptodata/1/pna/US6037_COMB.seq.*
82: /cgn2_6/ptodata/1/pna/US6038_COMB.seq.*
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84: /cgn2_6/ptodata/1/pna/US6040_COMB.seq.*
85: /cgn2_6/ptodata/1/pna/US6041_COMB.seq.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1341	100.0	1341	34	US-09-910-186A-7
2	1339.4	99.9	1341	17	US-09-350-756-2
3	1339.4	99.9	1341	23	US-09-611-419A-7
4	1324.4	98.8	1348	23	US-09-611-419A-39
5	1319.4	98.4	1351	5	US-08-123-975A-6
6	741.2	55.3	1547	1	PCT-US97-15394-45
7	741.2	55.3	1547	11	US-08-704-159-45
8	741.2	55.3	1547	43	US-10-271-012-45
9	741.2	55.3	3876	1	PCT-US97-15394-41
10	741.2	55.3	3876	11	US-08-704-159-41
11	741.2	55.3	3876	43	US-10-271-012-41
12	736	54.9	3876	23	US-09-730-237-3
13	663.4	49.5	4051	21	US-09-547-188-3
14	662.8	49.4	1526	1	PCT-US97-15394-43
15	662.8	49.4	1526	11	US-08-704-159-43
16	662.8	49.4	1526	43	US-10-271-012-43
17	661.8	49.4	3876	1	PCT-US97-15394-39
18	661.8	49.4	3876	11	US-08-704-159-39
19	661.8	49.4	3876	42	US-10-205-516-3
20	661.8	49.4	3876	43	US-10-271-012-39
21	661.8	49.4	3876	43	US-10-271-012-39

22 660.2 49.2 3906 42 US-10-205-516-17 Sequence 17, Appl
23 657 49.0 3876 29 US-09-730-237-2 Sequence 2, Appl
24 657 49.0 3876 29 US-10-051-952-2 Sequence 2, Appl
25 522.4 39.0 3509 42 US-10-241-596-19 Sequence 19, Appl
26 426.8 31.8 1368 23 US-09-611-419A-17 Sequence 17, Appl
27 426.8 31.8 1368 34 US-09-910-186A-17 Sequence 17, Appl
28 417 31.1 1347 17 US-09-350-756-6 Sequence 6, Appl
29 263 19.6 1323 23 US-09-611-419A-3 Sequence 3, Appl
30 263 19.6 1323 34 US-09-910-186A-3 Sequence 3, Appl
31 263 19.6 1326 23 US-09-611-419A-5 Sequence 5, Appl
32 263 19.6 1326 34 US-09-910-186A-5 Sequence 5, Appl
33 263 19.6 1330 1 PCT-US97-15394-22 Sequence 22, Appl
34 263 19.6 1330 8 US-08-405-496-22 Sequence 22, Appl
35 263 19.6 1330 8 US-08-422-711-22 Sequence 22, Appl
36 263 19.6 1330 8 US-08-480-604-22 Sequence 22, Appl
37 263 19.6 1330 11 US-08-704-159-22 Sequence 22, Appl
38 263 19.6 1330 14 US-09-084-517-22 Sequence 22, Appl
39 263 19.6 1330 43 US-10-271-012-22 Sequence 22, Appl
40 263 19.6 1332 23 US-09-611-419A-1 Sequence 1, Appl
41 263 19.6 1332 34 US-09-910-186A-1 Sequence 1, Appl
42 263 19.6 1338 5 US-08-123-975A-1 Sequence 1, Appl
43 263 19.6 1338 5 US-08-123-975A-1 Sequence 1, Appl
44 263 19.6 1338 17 US-09-350-756-1 Sequence 1, Appl
45 263 19.6 1338 23 US-09-611-419A-37 Sequence 37, Appl

ALIGNMENTS

RESULT 1
US-09-910-186A-7
; Sequence 7, Application US/09910186A
; GENERAL INFORMATION:
; APPLICANT: U.S. Army Medical Research & Materiel Command
; TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
; FILE OF INVENTION: NEUROTOXIN
; FILE REFERENCE: A33626-A 067252.0107
; CURRENT APPLICATION NUMBER: US/09/910,186A
; PRIOR FILING DATE: 2001-07-20
; PRIOR APPLICATION NUMBER: PCT/US00/12890
; PRIOR FILING DATE: 2000-05-12
; PRIOR APPLICATION NUMBER: 09/611,419
; PRIOR FILING DATE: 2000-07-06
; PRIOR APPLICATION NUMBER: 60/133,865
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,866
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,867
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,868
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,869
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,873
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 08/123,975
; PRIOR FILING DATE: 1993-09-21
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO. 7
; LENGTH: 1341
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic construct based on Clostridium botulinum
; OTHER INFORMATION: sequence
; NAME/KEY: CDS
; LOCATION: (10)...(1329)
US-09-910-186A-7

Query Match 100.0%; Score 1341; DB 34; Length 1341;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1341; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 GAATTCAGGATGGCCACCAATACAAATTCGAAATCCTGAACATATCATCTGACCTG 60
DB 1 GAATTCAGGATGGCCACCAATACAAATTCGAAATCCTGAACATATCATCTGACCTG 60
QY 61 CGTTACAAAGACAAACATCTGATCGATCTCTCTGGTTACGGTCTAAAGTTGAAGTATAC 120
DB 61 CGTTACAAAGACAAACATCTGATCGATCTCTCTGGTTACGGTCTAAAGTTGAAGTATAC 120
QY 121 GACGGTGTGAACCTGAATGACAGAACCAAGTTCAAACCTGACCTCTTCCGCTACTCTAAG 180
DB 121 GACGGTGTGAACCTGAATGACAGAACCAAGTTCAAACCTGACCTCTTCCGCTACTCTAAG 180
QY 181 ATCCGTGTGTTACTCAGATTCAGAACATCAITCTTCAACCTCCGATATTCCTGGACTTCTCTGTT 240
DB 181 ATCCGTGTGTTACTCAGATTCAGAACATCAITCTTCAACCTCCGATATTCCTGGACTTCTCTGTT 240
QY 241 TCCTTCTGGATTCCTGATCCCGAATATACAGAACGCGGTATCCAGATTTACATCCACAAT 300
DB 241 TCCTTCTGGATTCCTGATCCCGAATATACAGAACGCGGTATCCAGATTTACATCCACAAT 300
QY 301 GAATACACCATCATCAACTGCATGAAGAATAAATCTCTGTTGGAAGATCTCCATCCCGGT 360
DB 301 GAATACACCATCATCAACTGCATGAAGAATAAATCTCTGTTGGAAGATCTCCATCCCGGT 360
QY 361 AACCGTATCATCTGGACTCTGATCGATATCAACGGTGAAGACCAAAATCTGTTCTTCGAA 420
DB 361 AACCGTATCATCTGGACTCTGATCGATATCAACGGTGAAGACCAAAATCTGTTCTTCGAA 420
QY 421 TACAACATCCGTTGAAGACATCTCTGAATATACATCAATCGCTGGTCTTTCGTTACCATCACC 480
DB 421 TACAACATCCGTTGAAGACATCTCTGAATATACATCAATCGCTGGTCTTTCGTTACCATCACC 480
QY 481 AATAACCTGAACATGCTAAATCTATACATCAACGGTAAATCTTCAACCTGGACGGTGACATC 540
DB 481 AATAACCTGAACATGCTAAATCTATACATCAACGGTAAATCTTCAACCTGGACGGTGACATC 540
QY 541 AAAGACATCCGTTGAAGTATCGTAAACGGTGAATATCTTCAACCTGGACGGTGACATC 600
DB 541 AAAGACATCCGTTGAAGTATCGTAAACGGTGAATATCTTCAACCTGGACGGTGACATC 600
QY 601 GATCGTACCCAGTTCATCTGGATGAATATCTTCCATCTTCAACACCGGAACTGTCTCAG 660
DB 601 GATCGTACCCAGTTCATCTGGATGAATATCTTCCATCTTCAACACCGGAACTGTCTCAG 660
QY 661 TCCAATATCGAAGACGGTACAAAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTCGG 720
DB 661 TCCAATATCGAAGACGGTACAAAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTCGG 720
QY 721 GGTAAATCCGCTGATGTACAAACAAAGAAATACTATATGTTCAATGCTGTGTAAACAACTCT 780
DB 721 GGTAAATCCGCTGATGTACAAACAAAGAAATACTATATGTTCAATGCTGTGTAAACAACTCT 780
QY 781 TACATCAACCTGAAGAAAGACTCTCCGTTGGTGAATCTGCTGACTGCTTCCAATACAAC 840
DB 781 TACATCAACCTGAAGAAAGACTCTCCGTTGGTGAATCTGCTGACTGCTTCCAATACAAC 840
QY 841 CAGAACTCTTAATATACATCAACTACCGGACCTGTACATCCGGTGAAGTTCATCATCCGT 900
DB 841 CAGAACTCTTAATATACATCAACTACCGGACCTGTACATCCGGTGAAGTTCATCATCCGT 900
QY 901 CGCAATCTAATCTCAGTCCATCATGATGACATCTGACGTAAAGAGACTACATCTAC 960
DB 901 CGCAATCTAATCTCAGTCCATCATGATGACATCTGACGTAAAGAGACTACATCTAC 960
QY 961 CTGGACTCTTCAACCTGAATCAGGAATGGGTTGTATACACTACAAGTACTTCAAGAAA 1020
DB 961 CTGGACTCTTCAACCTGAATCAGGAATGGGTTGTATACACTACAAGTACTTCAAGAAA 1020
QY 1021 GAAGAAGAAAAGCTTTTCTGCTCCGATCTCTGATTCGACGACACTCTACAAACCATC 1080
DB 1021 GAAGAAGAAAAGCTTTTCTGCTCCGATCTCTGATTCGACGACACTCTACAAACCATC 1080

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QY 1081 CAGATCAAGAATACGACGACACGCCGACCTACTCTTGCAGCTGCTGTTCAGAAGAT 1140
Db 1081 CAGATCAAGAATACGACGACACGCCGACCTACTCTTGCAGCTGCTGTTCAGAAGAT 1140
QY 1141 GAAGATCTTACTGACGAATCGGTCTGATCGGTATCCACGGTTTCTACGAATCTGATC 1200
Db 1141 GAAGATCTTACTGACGAATCGGTCTGATCGGTATCCACGGTTTCTACGAATCTGATC 1200
QY 1201 GATTCGAGAATACAAAGACTACTTCTGCATCTCCAAATGSPACTGAAGGAAGTTAAA 1260
Db 1201 GATTCGAGAATACAAAGACTACTTCTGCATCTCCAAATGSPACTGAAGGAAGTTAAA 1260
QY 1261 CSCAACCGTCAACCTCAACTGGTGGTGCAAATGGCAGTTCATCCGAAACACGAAGT 1320
Db 1261 CGCAACCGTCAACCTCAACTGGTGGTGCAAATGGCAGTTCATCCGAAACACGAAGT 1320
QY 1321 TGGACCGAATAGTAAGAATTC 1341
Db 1321 TGGACCGAATAGTAAGAATTC 1341

RESULT 2
US-09-350-756-2
; Sequence 2, Application US/09350756
; GENERAL INFORMATION:
; APPLICANT: U.S. Army Medical Research Institute for Infectious Diseases
; APPLICANT: John S. Lee
; APPLICANT: Peter Pushko
; APPLICANT: Michael D. Parker
; APPLICANT: Jonathan F. Smith
; APPLICANT: Mark T. Dertzbaugh
; APPLICANT: Leonard Smith
; TITLE OF INVENTION: Botulinum Neurotoxin Vaccine
; FILE REFERENCE: 003/124/SAP RIID 98-21
; CURRENT APPLICATION NUMBER: US/09/350,756
; CURRENT FILING DATE: 1999-07-09
; EARLIER APPLICATION NUMBER: US 60/092,416
; EARLIER FILING DATE: 1998-07-10
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: Apple Macintosh Microsoft Word 6.0
; SEQ ID NO 2
; LENGTH: 1341
; TYPE: DNA
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: /note="synthetic sequence encoding botulinum neurotoxin"
US-09-350-756-2

Query Match 99.98; Score 1339.4; DB 17; Length 1341;
Best Local Similarity 99.98; Pred. No. 0;
Matches 1340; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 GAATTCACGATGGCCAAACAATACAATTCGGAATCTGTGAACATATCATCTGACCTG 60
Db 1 GAATTCACGATGGCCAAACAATACAATTCGGAATCTGTGAACATATCATCTGACCTG 60
QY 61 CGTTACAAGACAAATCTGATCGATCTGTCTGGTTACGGTGCTAAAGTTGAAGTATAC 120
Db 61 CGTTACAAGACAAATCTGATCGATCTGTCTGGTTACGGTGCTAAAGTTGAAGTATAC 120
QY 121 GACGGGTGTGAAGTCAATGACAAAGAACCTTCAAACTGACCTTCCTCCGTACACTAAG 180
Db 121 GACGGGTGTGAAGTCAATGACAAAGAACCTTCAAACTGACCTTCCTCCGTACACTAAG 180
QY 181 ATCCGGTGTACTCAGAATCAGAATCATCTTCAACTCCGATTTCTTGGACTTCTCTGT 240
Db 181 ATCCGGTGTACTCAGAATCAGAATCATCTTCAACTCCGATTTCTTGGACTTCTCTGT 240
QY 241 TCGTCTGATGATTCATCCCGAATACGAAGACGAGGTATCCAGATTCACATCCACAT 300
Db 241 TCGTCTGATGATTCATCCCGAATACGAAGACGAGGTATCCAGATTCACATCCACAT 300
QY 301 GAATACCATCATCAACTGGATGAAGAAATAACTCTGTTGGAAGATCTCCATCCGCGGT 360

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RESULT 3

US-09-611-419A-7
 ; Sequence 7, Application US/09611419A
 ; GENERAL INFORMATION:
 ; APPLICANT: Smith, Leonard A.
 ; APPLICANT: Byrne, Michael P.
 ; APPLICANT: Middlebrook, John L.
 ; APPLICANT: Lapenotiere, Hugh
 ; APPLICANT: Clayton, Michael A.
 ; APPLICANT: Brown, Douglas R.
 ; TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
 ; FILE REFERENCE: A33626 067252.0105
 ; CURRENT APPLICATION NUMBER: US/09/611.419A
 ; CURRENT FILING DATE: 2000-07-06
 ; PRIOR APPLICATION NUMBER: PCR/US00/12890
 ; PRIOR FILING DATE: 2000-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,865
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,866
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,867
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,868
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,869
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/146,192
 ; PRIOR FILING DATE: 1999-07-29
 ; NUMBER OF SEQ ID NOS: 42
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 7
 ; LENGTH: 1341
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Synthetic construct based on BONTA Hc
 ; FEATURE:
 ; NAME/KEY: CDS
 ; LOCATION: (10)...(1329)
 ; US-09-611-419A-7

Query Match 99.9%; Score 1339.4; DB 23; Length 1341;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 1340; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 1 GAATTCAGGATGCCAACAATACAAATCCGAAATCCCTGAACATATATCATCTGAACTG 60
 DB 1 GAATTCAGGATGCCAACAATACAAATCCGAAATCCCTGAACATATATCATCTGAACTG 60
 QY 61 CGTTACAAAGACAAATCTGATCGATCTGTCTGTTACGGTGTGCTAAAGTTGAAGTATAC 120
 DB 61 CGTTACAAAGACAAATCTGATCGATCTGTCTGTTACGGTGTGCTAAAGTTGAAGTATAC 120
 QY 121 GACGGTGTGAACTGAATGACAGAACCACTTCAAACTGACCTCTCCGCTAACTCTAAG 180
 DB 121 GACGGTGTGAACTGAATGACAGAACCACTTCAAACTGACCTCTCCGCTAACTCTAAG 180
 QY 181 ATCCGTTTACTCAGATCAGACATCATCTTCAACTCCGTTATCTCTGACTCTCTGTT 240
 DB 181 ATCCGTTTACTCAGATCAGACATCATCTTCAACTCCGTTATCTCTGACTCTCTGTT 240
 QY 241 TCCTTCGATTCGATCCGGAATACAGACGCGGTATCCAGAAATACATCCACAAT 300
 DB 241 TCCTTCGATTCGATCCGGAATACAGACGCGGTATCCAGAAATACATCCACAAT 300
 QY 301 GAATACACCATCATCACTGCATGAAGATAACTCTGGTTGGAAGATCTCCATCCGCGGT 360
 DB 301 GAATACACCATCATCACTGCATGAAGATAACTCTGGTTGGAAGATCTCCATCCGCGGT 360
 QY 361 AACCGTATCATCTGGACTGTGATCGATATCAACGGTGAAGACCAATCTGTTCTTGGAA 420
 DB 361 AACCGTATCATCTGGACTGTGATCGATATCAACGGTGAAGACCAATCTGTTCTTGGAA 420

QY 421 TACAACATCCGTTGAAGACATCTCTGAATACATCAATCAATCGTGGTCTTCGTTACCATCACC 480
 DB 421 TACAACATCCGTTGAAGACATCTCTGAATACATCAATCAATCGTGGTCTTCGTTACCATCACC 480
 QY 481 AATAACCTGAACATGCTAAATCTATCAATCAACGGTAACTGGAATCTAATACCGACATC 540
 DB 481 AATAACCTGAACATGCTAAATCTATCAATCAACGGTAACTGGAATCTAATACCGACATC 540
 QY 541 AAAGACATCCGTTGAAGTTATCGTAAACGGTGAATCATCTTCAAACTGGACGGTGACATC 600
 DB 541 AAAGACATCCGTTGAAGTTATCGTAAACGGTGAATCATCTTCAAACTGGACGGTGACATC 600
 QY 601 GATGATCCAGTTCATCTGATGAATATCTTCCATCTTCAACACCGGACGATCTCTCAG 660
 DB 601 GATGATCCAGTTCATCTGATGAATATCTTCCATCTTCAACACCGGACGATCTCTCAG 660
 QY 661 TCCAATATCGAAGACGCTGATCAAGATCCAGTCTTACCGGATACCTGAAAGACTTCTGG 720
 DB 661 TCCAATATCGAAGACGCTGATCAAGATCCAGTCTTACCGGATACCTGAAAGACTTCTGG 720
 QY 721 GGTAAATCCGCTGATGTACAACAAAGATATATATGTTCAATGCTGTTAACAAGACTCT 780
 DB 721 GGTAAATCCGCTGATGTACAACAAAGATATATATGTTCAATGCTGTTAACAAGACTCT 780
 QY 781 TACATCAAACTGAAGAAAGACTCTCCGCTTGGTGAATCTGACTCTGCTTCAAAATACAAC 840
 DB 781 TACATCAAACTGAAGAAAGACTCTCCGCTTGGTGAATCTGACTCTGCTTCAAAATACAAC 840
 QY 841 CAGAATCTTAAATACATCAACTACCGGACCTGTACATCGGTGAAAGTCTATCATCCGT 900
 DB 841 CAGAATCTTAAATACATCAACTACCGGACCTGTACATCGGTGAAAGTCTATCATCCGT 900
 QY 901 CGCAATCTAATCTCAGTCCATCAATGATGACATCGTACGTAAGAGACTATCATCTAC 960
 DB 901 CGCAATCTAATCTCAGTCCATCAATGATGACATCGTACGTAAGAGACTATCATCTAC 960
 QY 961 CTGGACTTCTTCAACTGAATCAGGAATGGGCTGTATACACCTACAAGTACTTCAAGAAA 1020
 DB 961 CTGGACTTCTTCAACTGAATCAGGAATGGGCTGTATACACCTACAAGTACTTCAAGAAA 1020
 QY 1021 GAAGAGAAAGCTTTCTCGCTCCGATCTCTGATCCGACGACTCTACAACACCATC 1080
 DB 1021 GAAGAGAAAGCTTTCTCGCTCCGATCTCTGATCCGACGACTCTACAACACCATC 1080
 QY 1081 CAGATCAAAAGATACGACGACGACGACCTACTCTTCCAGCTGCTTCAAGAAAGAT 1140
 DB 1081 CAGATCAAAAGATACGACGACGACGACCTACTCTTCCAGCTGCTTCAAGAAAGAT 1140
 QY 1141 GAAGATCTTACTGACGAATCGGCTGTATCGGTATCCACCGCTTCTACGATCTGGTATC 1200
 DB 1141 GAAGATCTTACTGACGAATCGGCTGTATCGGTATCCACCGCTTCTACGATCTGGTATC 1200
 QY 1201 GTATTGGAAGATACAAAGACTTCTCTGCATCTTCCAAATGGTACCTGAAGAAAGTAAA 1260
 DB 1201 GTATTGGAAGATACAAAGACTTCTCTGCATCTTCCAAATGGTACCTGAAGAAAGTAAA 1260
 QY 1261 CGCAACCGTCAACCTGAACTGGTGGTGAATGGAGTTCATCCCGAAAGAGGAAGGT 1320
 DB 1261 CGCAACCGTCAACCTGAACTGGTGGTGAATGGAGTTCATCCCGAAAGAGGAAGGT 1320
 QY 1321 TGGACCGAATAGTAAGAAATTC 1341
 DB 1321 TGGACCGAATAGTAAGAAATTC 1341

RESULT 4
 US-09-611-419A-39
 ; Sequence 39, Application US/09611419A
 ; GENERAL INFORMATION:
 ; APPLICANT: Smith, Leonard A.
 ; APPLICANT: Byrne, Michael P.
 ; APPLICANT: Middlebrook, John L.
 ; APPLICANT: Lapenotiere, Hugh

APPLICANT: Clayton, Michael A.
APPLICANT: Brown, Douglas R.
TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
FILE REFERENCE: A33626 067252.0105
CURRENT APPLICATION NUMBER: US/09/611,419A
CURRENT FILING DATE: 2000-07-06
PRIOR APPLICATION NUMBER: PCT/US00/12890
PRIOR FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: 60/133,865
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/133,866
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/133,867
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/133,868
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/133,869
PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/146,192
PRIOR FILING DATE: 1999-07-29
NUMBER OF SEQ ID NOS: 42
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 39
LENGTH: 1348
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic construct based on BoNTB Hc
FEATURE:
NAME/KEY: CDS
LOCATION: (1)...(1323)
US-09-611-419A-39

Query Match 98.8%; Score 1324.4; DB 23; Length 1348;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 1325; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 10 ATGCCAACAAATACAAATCCGAATCTCGACATATATCATCTCTGAACCTCGGTACAAA 69
Db 1 ATGCCAACAAATACAAATCCGAATCTCGACATATATCATCTCTGAACCTCGGTACAAA 60
QY 70 GACAAATCTGATCGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 129
Db 61 GACAAATCTGATCGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 120
QY 130 GAATGAATGACAAAGACAGTTCAACTGACCTCTCGGTAATCTGCTGCTGCTGCTGCT 189
Db 121 GAATGAATGACAAAGACAGTTCAACTGACCTCTCGGTAATCTGCTGCTGCTGCTGCT 180
QY 190 ACTCAGATCAGAACATCATCTTCACTCGGTAATCTGCTGCTGCTGCTGCTGCTGCTGCT 249
Db 181 ACTCAGATCAGAACATCATCTTCACTCGGTAATCTGCTGCTGCTGCTGCTGCTGCTGCT 240
QY 250 ATTGCTATCCGAAATACAAAGACAGTTCAACTGACCTCTCGGTAATCTGCTGCTGCTGCT 309
Db 241 ATTGCTATCCGAAATACAAAGACAGTTCAACTGACCTCTCGGTAATCTGCTGCTGCTGCT 300
QY 310 ATCATCAATGCTGATGAAGATCACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 369
Db 301 ATCATCAATGCTGATGAAGATCACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 360
QY 370 ATCTGGACTCTGATCGATATCAACGGTAAGACAAATCTGCTGCTGCTGCTGCTGCTGCTGCT 429
Db 361 ATCTGGACTCTGATCGATATCAACGGTAAGACAAATCTGCTGCTGCTGCTGCTGCTGCTGCT 420
QY 430 CGTGAACATCTCTGAATACATCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 489
Db 421 CGTGAACATCTCTGAATACATCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 480
QY 490 AACAAATGCTTAAATCTACATCAACGGTAAGTGAATCTTAATACCGACATCAAAAGACATC 549
Db 481 AACAAATGCTTAAATCTACATCAACGGTAAGTGAATCTTAATACCGACATCAAAAGACATC 540

QY 550 CGTGAAGTTATCGCTAACGGTGAATCATCTTCAAACTGGACGGTGACATCGATCGTACC 609
Db 541 CGTGAAGTTATCGCTAACGGTGAATCATCTTCAAACTGGACGGTGACATCGATCGTACC 600
QY 610 CAGTTATCTGATGAATGAAATCTCTCCATCTTCAACACCGAAGTCTCTCAGTCCAAATATC 669
Db 601 CAGTTATCTGATGAATGAAATCTCTCCATCTTCAACACCGAAGTCTCTCAGTCCAAATATC 660
QY 670 GAAGAAGGTACAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTGGGGTAATCCG 729
Db 661 GAAGAAGGTACAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTGGGGTAATCCG 720
QY 730 CTGATCTACAACAAAGAAATATATGTTCAATGCTGTTAAACAAAGTCTTACATCAA 789
Db 721 CTGATCTACAACAAAGAAATATATGTTCAATGCTGTTAAACAAAGTCTTACATCAA 780
QY 790 CTGAAGAAAGACTCTCCGGTGGTGAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 849
Db 781 CTGAAGAAAGACTCTCCGGTGGTGAATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 840
QY 850 AAATACATCAACTACCGGACCTGTACATCGGTGAAAGTTCATCATCCGTCGCAAAATCT 909
Db 841 AAATACATCAACTACCGGACCTGTACATCGGTGAAAGTTCATCATCCGTCGCAAAATCT 900
QY 910 AACTCTCAGTCCATCAATGATGACATCGGTGAAAGTTCATCATCTCCTGCTGCTGCTGCTGCT 969
Db 901 AACTCTCAGTCCATCAATGATGACATCGGTGAAAGTTCATCATCTCCTGCTGCTGCTGCTGCT 960
QY 970 TTCAACCTGAATCAGGAATGGGCTGTATACATCGGTGAAAGTTCATCATCTCCTGCTGCTGCTGCT 1029
Db 961 TTCAACCTGAATCAGGAATGGGCTGTATACATCGGTGAAAGTTCATCATCTCCTGCTGCTGCTGCT 1020
QY 1030 AAGCTTTTCTGCTCCGATCTCTGATTCGAGCACTCTTCAACACCATCCAGATCAA 1089
Db 1021 AAGCTTTTCTGCTCCGATCTCTGATTCGAGCACTCTTCAACACCATCCAGATCAA 1080
QY 1090 GAATGAGGACAGACCGGACCTACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1149
Db 1081 GAATGAGGACAGACCGGACCTACTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1140
QY 1150 ACTGAGCAATCGGCTGATCGGTATCCACCGTCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1209
Db 1141 ACTGAGCAATCGGCTGATCGGTATCCACCGTCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1200
QY 1210 GAATCAAAAGACTACTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1269
Db 1201 GAATCAAAAGACTACTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1260
QY 1270 TACAACCTGAAATCGGTTGCAATGGCAATGGCAATGGCAATGGCAATGGCAATGGCAATGGCA 1329
Db 1261 TACAACCTGAAATCGGTTGCAATGGCAATGGCAATGGCAATGGCAATGGCAATGGCAATGGCA 1320
QY 1330 TAGTAA 1335
Db 1321 TAGTAA 1326

RESULT 5
US-08-123-975A-6
; Sequence 6, Application US/08123975A
; GENERAL INFORMATION:
; APPLICANT: Middlebrook, John L
; APPLICANT: Lepenotiere, Hugh F
; APPLICANT: Clayton, Michael A
; APPLICANT: Brown, Douglas R
; TITLE OF INVENTION: POLYPEPTIDE FUSION PRODUCT AS VACCINE
; TITLE OF INVENTION: AGAINST C. BOTULINUM
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: John F. Moran
; STREET: Off. of Command Jdg. Adv.
; CITY: Fredrick

[illegible]

```

RESULT 6
PCT-US97-15394-45
; Sequence 45, Application PC/TUS9715394
; GENERAL INFORMATION:
; APPLICANT: Williams, James A.
; APPLICANT: Thalley, Bruce S.
; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
; TITLE OF INVENTION: Botulinum Neurotoxin
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Medlen & Carroll
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California
; COUNTRY: United States of America
; ZIP: 94104
; COMPUTER READABLE FORM:

```



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; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US97/15394
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Ingolia, Diane E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPHD-02304
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410
; TELEFAX: (415) 397-8338
; INFORMATION FOR SEQ ID NO: 45:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1547 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 108..1523
; PCT-US97-15394-45

Query Match 55.3%; Score 741.2; DB 1; Length 1547;
Best Local Similarity 72.5%; Pred No. 8.3e-194;
Matches 959; Conservative 0; Mismatches 363; Indels 0; Gaps 0;

QY 10 ATGCCCAACAAATACAAATCCGAAATCCGAAATACATATACATCCTGAACTCGGTTCACAAA 69
DB 204 ATGTTTAAATATATATATAGCAAAATTTTAAATATATATATATATCTTAAATTAAGATATAAG 263

QY 70 GACAAACATCTGATCGATCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 129
DB 264 GATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 323

QY 130 GAATGAAATGACAAAGAACCAAGTTCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 189
DB 324 GAGCTTAATGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 383

QY 190 ACTCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATC 249
DB 384 ACTCAAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATCAGAAATC 443

QY 250 ATTGCTATCCGAAATACAAAGAACCAAGTTCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 309
DB 444 ATAAGAAATCCTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 503

QY 310 ATCATCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 369
DB 504 ATAATTAATGTAAGAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 563

QY 370 ATCTGCACTCTGATGATATCAACGGAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 429
DB 564 ATATGCACTTATGATGATATCAACGGAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 623

QY 430 CGTGAAGAACTCTGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 489
DB 624 AGAGAAGATATATCAGAGATATATATATATATATATATATATATATATATATATATATATATAT 683

QY 490 AACAATGCTAAATCTACATCAACGGAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 549
DB 684 AATAAGCTTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 743

QY 550 CGTGAAGTATCCCTAACGGAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 609
DB 744 AGAGAAGTATATCTGATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 803

QY 610 CAGTTGATCTGGAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA 669
DB 610 CAGTTGATCTGGAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCAATGCA

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DB 804 CAATTTATTTGGAAGAATATTTTCAATTTTAAATACGGAATTAAGTCAATCAAAATATT 863
QY 670 GAAGAAGCGGTACAAAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTTGGGGTAAATCCG 729
DB 864 GAAGAAGATATAAAATTCATATACATATACGGAATTTTAAAGATTTTGGGGAAATCCT 923
QY 730 CTGATGTACAAAGAAGAAATACTATATGTTCAATGCTGGTAAAGAAGAACTCTTACATCAAA 789
DB 924 TTAATGTACAAATAAAGAAATATATATGTTTAAATGCGGGAATAAAATTTTCAATATATAA 983
QY 790 CTGAAGAAGAACTCTCCGGTGGTGAATCTCTGACTCGTTCCTCAAAATACAACAGAACTCT 849
DB 984 CTAAGAAGAAATTCACCTGTAGGTGAATTTTAAACAGCTAGCAAAATATAATCAAAATCT 1043
QY 850 AAATACATCAACTACCGGACCTGTACATCGGTGAAAGTTCATCATCGCTGCGCAAAATCT 909
DB 1044 AAATATATAAATATATAGATTTATATATTTGGAGAAAATTTTATTATAAGAAGAAGTCA 1103
QY 910 AACTCTCAGTCCATCAATGATGACATCGTACGTAAGAAGAGACTACATCTACTCGTACTTC 969
DB 1104 AATTCATCATATAATGATGATAGTATAGTATAGTATAGTATAGTATAGTATAGTATAGTAT 1163
QY 970 TTCAACTGAATCAGGAATGGCGGTATATACACTACAAGTACTTCAAGAAAAGAGAGAA 1029
DB 1164 TTTAATTTAAATCAAGAGTGGAGAGTATATACCTATATAATTTTAAAGAAAGAGAGAA 1223
QY 1030 AAGCTTTTCTGCTCCGATCTCTGATTCGAGAGACTCTACACACCATCCAGATCAAA 1089
DB 1224 AAATGTTTTTACTCTCTATAGTGAATTTCTGATGAGTTTTACAACTACTATACAAATAAA 1283
QY 1090 GAATACGAGCAACAGCGACCTACTTCTCCAGCTGCTGTTCAAGAAAAGATGAAGAAATCT 1149
DB 1284 GAATATGATGAACAGCAACATATAGTTCAGTTCGTTTAAAAAAGATGAAGAAAGT 1343
QY 1150 ACTGAGGAATCGTCTGATCGGTATCCACCGTCTTACGATCTGCTATCTGCTATTCGAA 1209
DB 1344 ACTGATGATAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1403
QY 1210 GAATACAAAGACTACTTCTGATCTCCAAATGCTACCTGAAAGAGTAAACGCAAAACCG 1269
DB 1404 GAGTATAAGATTTATTTTGTATAGTAAATGCTACTTAAAGAGGTAAAGAGGAAACCA 1463
QY 1270 TACAACCTGAACCTGGTTCGAAATGGGAGTTCATCCGAAAGAGAGAGGTGGACCGAA 1329
DB 1464 TATAATTTAAATTTGGGATGTAATTTGGCAGTTTATTTCTTAAAGATGAAGGGTGGACTGAA 1523
QY 1330 TA 1331
DB 1524 TA 1525

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RESULT 7
US-08-704-159-45
; Sequence 45, Application US/08704159
; GENERAL INFORMATION:
; APPLICANT: Williams, James A.
; APPLICANT: Thalley, Bruce S.
; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
; TITLE OF INVENTION: Botulinum Neurotoxin
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSES: Medlen & Carroll
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California
; COUNTRY: United States of America
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:

```



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PILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
  NAME: Ingolia, Diane E.
  REGISTRATION NUMBER: 40,027
  REFERENCE/DOCKET NUMBER: OPBD-02304
TELECOMMUNICATION INFORMATION:
  TELEPHONE: (415) 705-8410
  TELEFAX: (415) 397-8338
  INFORMATION FOR SEQ ID NO: 45:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 1547 base pairs
      TYPE: nucleic acid
      STRANDEDNESS: double
      TOPOLOGY: linear
      MOLECULE TYPE: DNA (genomic)
      FEATURE:
        NAME/KEY: CDS
        LOCATION: 108..1523
        SEQUENCE DESCRIPTION: SEQ ID NO: 45:
US-10-271-012-45

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Query Match	55.38;	Score	741.2;	DB	43;	Length	1547;
Best Local Similarity	72.5%;	Prod. No.	8.3e-194;				
Matches	959;	Conservative	0;	Mismatches	363;	Indels	0;
Gaps							
QY	10	ATGGCCCAACAAATACAAATTCGGAATCCCTGAAACAATATCATCTCGAACCTGCGGTACAAA	69				
DB	204	ATGTTTAAATAATAATATACGGAAATTTTAAATAATAATATCTTAAATTTAAGATATAAG	263				
QY	70	GACAAACATCTGATCGATCTGCTCGTTACGGTGTCTAAAGTTGAAGTATATACGACGGTGT	129				
DB	264	GATAATAATTTATAGATTTATCAGGATATGGGCAAGAGTASAGGTATATGATGGAGTC	323				
QY	130	GAACTGAATGACAGAACCACTGTTCAAACCTGACCTCTCCGCTAACTCTGAAGATCCCGTGT	189				
DB	324	GAGCTTATGATGAATAATCAATTTAAATTAACCTAGCTCAGCAAACTAGATTAGAGTC	383				
QY	190	ACTCAGAATCAGACATCATCTCTCACTCCGTATTCCTCTGGACCTCTCTCTGTTCCGTC	249				
DB	384	ACTCAAAATCAGAATATCATATTTAATGTGTCTTCCTTGATTTTACGGTAGCTTTTG	443				
QY	250	ATTCTGATCCCGAAATCAAGACGACGGTATCCAGAATTACATCCCAATGAATACAC	309				
DB	444	ATAGAATACCTAAATTAAGATATAGATGATACAAATTTATTCATATGAATATACA	503				
QY	310	ATCATCACTCGATGAGAATACTCTGGTTGGAAGATCTCCATCCGGGTAAACCGTATC	369				
DB	504	ATAATTAATTTGATGAAAAATAATTCGGCTGGAAATATCTATTAGGGTAAATAGATA	563				
QY	370	ATCTGACCTCTGATCGATATCAACGGTAAAGACCAATCTGTATTCTTCGAATACAACTC	429				
DB	564	ATATGGACTTTAATGTATTAATGAAACCAANTCGGTATTTTGTGATATACATA	623				
QY	430	CGTGAAGACATCTCTGAATACATCAATCGCTGGTCTCTCGTTACCATCACAAATACCTG	489				
DB	624	AGAGAAGATATATCAGAGTATATAAATAGATAGTGGTTTTTGTAACTATTACTATAATTTG	683				
QY	490	AGCAATGCTAAAATCTACATCAACGGTAAACTGGAACTTAATACCGACATCAAAAGACATC	549				
DB	684	ATAACGCTAAAAATTAATATATGTTAGCTAGAAATCAATACAGATATTAAAGATATA	743				
QY	550	CGTGAAGTTATCGTTAACGGTGAATATCTTCCAACTGGAGCGGTGACATCGATCGTACC	609				
DB	744	AGAGAAGTTATTTGTTAATGGTGAATAATATTTAAATTAAGATGGTATAGATAGAGAACA	803				
QY	610	CAGTTTCATCTGGATGAATACTCTCCATCTTCAACACCGAACTGTCTCAGTCCCAATATC	669				
DB	804	CAATTTATTTGGATGAAATATTTTCAGTATTTTTTAATACGGAATTAAGTCAATCAATATT	863				
QY	670	GAAGAACGGTACAAGATCCAGTCTTACTCCGAATACCTGAAAGATCTTCGGGTAAATCCG	729				
DB	864	GAAGAAGATATAAATTCAAATCATATAGCGAATATTTAAAGATATTTTGGGGAATTCCT	923				

QY	730	CTGATGTACACAAGAAATACATATGTCTAACTCGTACAGAGACTCTTACATCAA	789
Db	924	TTAATGTACAAATAAGAAATATATATGTCTAATCGGGGAATAAAATTCATATATAA	983
QY	790	CTGAAGAAGACTCTCCGGTTGGTGAATCCTGACTCGTCCCAATACACCAAGAACTCT	849
Db	984	CTAAAGAAGATTCACCTGTAGGTGAATTTTAAACAGTAGCAATATAATCAAAATCT	1043
QY	850	AAATACATCAACTACCGGACCTGTACATCGTCAAAAGTTTCATCATCCGTCCGAAATCT	909
Db	1044	AAATATATAATATAGAGATTATATATTGGAGAAAAATTTATTTAAAGAGAAAGTCA	1103
QY	910	AACTCTCAGTCCATCAATGATGACATCGTACGTAAAGAAGACTACATCTACCTGGACTTC	969
Db	1104	AATTTCTCAATCTATAAATGATGATATAGTTTAAAGAAGAGATTATATATCTAGATTTT	1163
QY	970	TTCACCTCGAATCAGGAATGGCGTGTATACACCTTACAGTACTTCAAGAAGAAGAAGAA	1029
Db	1164	TTTATTTAAATCAAGACTGGAGAGTATATACCTTATAATATTTTAAAGAAGAGGAAGAA	1223
QY	1030	AAGTTTTCTCGGTCGCACTCTGATTTCCGACGAATCTACACACCACTCCAGATCAA	1089
Db	1224	AAATGTGTTTTAGTCTCTATAAGTGATCTGATGAGTTTACATACTATACAAATAAAA	1283
QY	1090	GAATCGACGAACAGCCGACCTACTCTTGCCAGCTGCTGTTCAAGAAAGATGAAGAATCT	1149
Db	1284	GAATATGATGAACAGCCACACATATAGTTGTCAAGTTGCTTTTAAAAAAGATGAAGAAAT	1343
QY	1150	ACTGACGAATACGGTCTGATCGGTATCCACGGTTTCTACGNAATCTGCTATCGGATTCGAA	1209
Db	1344	ACTGATGAGATAGGATTTGATTTGGTATTATCGTTTCTACGAACTCTGGAATTTGATTTGAA	1403
QY	1210	GAATACAAAGACTACTTCTGCATCTCCAAATGGTACCTGGAAGGAAGTTAAACCGCAACCG	1269
Db	1404	GAGTATAAAGATTATTTTGTATAAGTAAATGGTACTTAAAGAAGGTAAAGAAGAAACCA	1463
QY	1270	TACACCTGAAACTGGGTGCAATTTGGCAGTCTATCCGGAAGACGAAGTTTGACCGGAA	1329
Db	1464	TATATTTAAATTTGGGATGTAAATGGCAGTTTATTCCTAAAGATGAAGGGTGGACTGAA	1523
QY	1330	TA 1331	
Db	1524	TA 1525	

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1  RESULT 9
2  PCT-US97-15394-41
3  ; Sequence 41, Application PC/TUS9715394
4  ; GENERAL INFORMATION:
5  ; APPLICANT: Williams, James A.
6  ; APPLICANT: Thalley, Bruce S.
7  ; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
8  ; TITLE OF INVENTION: Botulinum Neurotoxin
9  ; NUMBER OF SEQUENCES: 82
10 ; CORRESPONDENCE ADDRESS:
11 ; ADDRESSEE: Medlen & Carroll
12 ; STREET: 220 Montgomery Street, Suite 2200
13 ; CITY: San Francisco
14 ; STATE: California
15 ; COUNTRY: United States of America
16 ; ZIP: 94104
17 ; COMPUTER READABLE FORM:
18 ; MEDIUM TYPE: Floppy disk
19 ; COMPUTER: IBM PC compatible
20 ; OPERATING SYSTEM: PC-DOS/MS-DOS
21 ; SOFTWARE: Patentt Release #1.0, Version #1.30
22 ; CURRENT APPLICATION DATA:
23 ; APPLICATION NUMBER: PCT/US97/15394
24 ; FILING DATE:
25 ; CLASSIFICATION:
26 ; ATTORNEY/AGENT INFORMATION:
27 ; NAME: Ingolia, Diane E.
28 ; REGISTRATION NUMBER: 40, 027

```

REFERENCE/DOCKET NUMBER: OPHD-02304
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
LENGTH: 3876 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
FEATURE:
NAME/KEY: CDS
LOCATION: 1..3873
PCT-US97-15394-41

Query Match 55.3%; Score 741.2; DB 1; Length 3876;

Best Local Similarity 72.5%; Pred. No. 1.3e-193;

Matches 959; Conservative 0; Mismatches 363; Indels 0; Gaps 0;

Db 10 ATGCCAACAAATACAAATCCGAAATCTGACCAATATCATCTGACCTCGCGTTACAAA 69
Db 2554 AUGTTTAAATATAATAGCGAATTTTAAATATATATCTTAAATTAAGATATAG 2613
Qy 70 GACAAACATCTGATCGATCTGCTGGTTACGGTGCTAAAGTTGAAGTATACGAGGTT 129
Db 2614 GATAATAATTTAATAGATTTATCAGGATATGGGCAAGGTAGAGGTATATGATGGAGTC 2673
Qy 130 GAACCTAAGTACGAACAGACGTTCAAACTGACCTCTCCGCTAACTCTAAGATCCGTT 189
Db 2674 GACCTAAGTATAAATCAATTTAAATTAAGTATAGTTCAGCAATATAGTATAGAGTG 2733
Qy 190 ACTGAGAACTGAGACATCATCTCAACTCCGTTATCTGCTGAGCTCTCTGTTCCCTGG 249
Db 2734 ACTCAAAATCAGAAATATATATTAATAGTGTGTTCTGTTAGCTTTAGCTTTGG 2793
Qy 250 ATTCGTATCCGAAATACAGAACGACGCTATACAGATTAATACATCCCAATGAATACAC 309
Db 2794 ATGAATACCTTAATATAGAAATGATGGTATACAAATATATATTCATATGAATATACA 2853
Qy 310 ATCATCACTGATGAGAAATCACTCTGTTGGAGATCTCCATCCGCGTAAACCGTATC 369
Db 2854 ATAATTAATTTGATGAAATAATTCGGCTGGAATAATCTATTAGGGTAAATAGGATA 2913
Qy 370 ATCTGACCTGATCGATATCAACGTTAGACCAATCTGATCTTCGATCAACATC 429
Db 2914 ATATGACCTTAAATGATATAATGAAATCAAAATCGGATTTTGTGAATATACATA 2973
Qy 430 CGTGAAGACATCTCTGAATACATCAATCGCTGTTCTCGTTACCATCACCAATAACCTG 489
Db 2974 AGAAGAGATATACAGATATATAATAGATGGTTTTTGTAACTATTACTAATAATTG 3033
Qy 490 ACAATGCTAAATCTACATCAACGTTAACTGGAATCTAATACCGACATCAAGACATC 549
Db 3034 AATAACGCTAAATTTATATTAATGTTAGCTAGATCAATCAATACAGATATTAAGATATA 3093
Qy 550 CGTGAAGTATCTGCTAACGCTGAAATCACTTCAAACTGGAGCTGACATCGATCGTACC 609
Db 3094 AGAAGATTTATCTAATGGTGAATAATTTAAATAGATGGTGATATAGATAGAACA 3153
Qy 610 CAGTTATCTGGAATGAATATCTTCCATCTTCAACACGAACTGCTCACTCCAAATATC 669
Db 3154 CAATTTATTTGGATGAATATTTCAATCTAGTATTTTAACTAGGAATTAAGTCAATCAAT 3213
Qy 670 GAAGACGGTACAGATGACGTTCTCTCCGAAATACCTGGAAGACTCTCGGGTAAATCCG 729
Db 3214 GAGAAGATATAAATTTCAATCATATACGATATTTAAAGATTTTGGGGAATCCT 3273
Qy 730 CTGATGACAAAGAAATACATATATGTTCAATGTTGTTGTTGTTGTTGTTGTTGTTGTT 789
Db 3274 TTAATGACAAATAAAGATATATATGTTTAAATGCGGGGAATAAATTCATATATATAA 3333
Qy 790 CTGAAGAAAGACTCTCCGGTTGTTGTAATCCCTGACTCTGCTTCCAAATACCAACGACTCT 849

Db 3334 CTAAAGAAAGATTCCACCTGTAGTGAATTTTACAGCTAGCAATATATATCAAAATCT 3393
Qy 850 AAATACATCAACTACCGGACCTGTATACATCGGTGAAAAGTTTCATCATCTCCCAATCT 909
Db 3394 AAATATATAAATTTATAGAGATTTATATTTGGAGAAAAATTTATTAAGAAGAAAGTCA 3453
Qy 910 AACTCTCAGTCCATCAATGATGACATCGTAGTAAAGAAAGACTACATCTACCTGGACTTC 969
Db 3454 AATCTCAATCTAATATGATGATATAGTAGAAGAAAGATATATATATATCTAGATTTT 3513
Qy 970 TTCAACCTGAATCAGGAATGCGGTGTATACACCTTACAGTACTTCAAGAAAGAGAGAA 1029
Db 3514 TTTAATTTAAATCAAGAGTGGAGAGTATATACCTATAAATATTTTAAAGAAAGAGAGAA 3573
Qy 1030 AAGCTTTTCTGGCTCGATCTCTGATTCGAGCACTCTACACACCATCCAGATCAAA 1089
Db 3574 AAATTTGTTTGTAGTCTCTATAGTGATTTCTGATGAGTTTACATATATATACAAATAAA 3633
Qy 1090 GAATACGACGACGACGACCTACTCTTCCAGCTGCTGTTCAAGAAAGATGAAGATCT 1149
Db 3634 GAATATGATGAACGCCAACATATAGTTGTCAGTTGCTTTTAAAAAAGATGAAGAAAGT 3693
Qy 1150 ACTGACGAAATCGGCTCTGATCGGTATCCACGTTTCTACGAATCTGGTATCTGCGAA 1209
Db 3694 ACTGATGAGATAGGATGATGTTGTTTCTACGATCTTCTACGAATCTGGAATGTTTGA 3753
Qy 1210 GAATCAAAAGACTCTCTGATCTCCAAATGCTGACCTGAGGAAAGTAAACCAACCG 1269
Db 3754 GAGTAAAGATTTATTTGTTATAGTAAATGTTTACTTAAAGAGGTAAAGAAAGACCA 3813
Qy 1270 TACAACCTGAACTGGGTGCAATGTCAGTTGCGAGTTTCACTCCGAAAGAGAGTTCGACCGAA 1329
Db 3814 TATAATTTAAATTTGGAATGGAATGGAATGGAATGGAATGGAATGGAATGGAATGGA 3873
Qy 1330 TA 1331
Db 3874 TA 3875

RESULT 10

US-08-704-159-41

; Sequence 41, Application US/08704159

; GENERAL INFORMATION:

; APPLICANT: Williams, James A.

; APPLICANT: Thalley, Bruce S.

; TITLE OF INVENTION: Multivalent Vaccine For Clostridium

; NUMBER OF SEQUENCES: 82

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Medlen & Carroll

; STREET: 220 Montgomery Street, Suite 2200

; CITY: San Francisco

; STATE: California

; COUNTRY: United States of America

; ZIP: 94104

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patent in Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/704,159

; FILING DATE:

; CLASSIFICATION: 424

; ATTORNEY/AGENT INFORMATION:

; NAME: Ingolia, Diane E.

; REGISTRATION NUMBER: 40,027

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 705-8410

; TELEFAX: (415) 397-8338

; INFORMATION FOR SEQ ID NO: 41:

SEQUENCE CHARACTERISTICS:
 LENGTH: 3876 base pairs
 TYPE: nucleic acid
 STRANDEDNESS: double
 TOPOLOGY: linear
 MOLECULE TYPE: DNA (genomic)
 FEATURE:
 NAME/KEY: CDS
 LOCATION: 1..3873
 US-08-704-159-41

Query Match 55.3%; Score 741.2; DB 11; Length 3876;
 Best Local Similarity 72.5%; Pred. No. 1.3e+193;
 Matches 959; Conservative 0; Mismatches 363; Indels 0; Gaps 0;

QY 10 ATGGCCACAAATACAAATCCGAATCTCGAATCTGAACTGAACTATATCTGAACTCGGTTACAAA 69
 DB 2554 ATGTTTAAATAATATAGGAAATTTAAATAATATATATCTTTAAATTTAAAGATATAAG 2613
 QY 70 GACAAATCTGATCGATCTGCTGGTTACGGTGTCTAAAGTTGAAGTATACGACGGTGT 129
 DB 2614 GATAATAATTTAATAGATTTATCAGGATATCGGCAAGGTAGAGGTATATGATGAGTC 2673
 QY 130 GAACGATGACAAAGACAGTTCAAACTGACCTCTCCGCTAACTCTAAGATCCGCGTT 189
 DB 2674 GAGCTTAATGATATAAATCAATTTAAATTAATCTAGTTTACGCAATAGTAAAGATTAGTG 2733
 QY 190 ACTCAGAACTCAGAACTATCTTCAACTCCGCTATCTCGTGGACCTCTCTGTTCTCTCTGG 249
 DB 2734 ACTCAAACTCAGAACTATCTTAAATTAATGATGCTGCTCTGTTTACGGTTAGCTTTGG 2793
 QY 250 ATTCGATCCCGAAATACAAAGACGCGTATCCAGAAATTTACATCCCAATGATATACAC 309
 DB 2794 ATAAGAATACCTAAATATAGAAATGATGATATACAAATATATATATATATATATATATAC 2853
 QY 310 ATCACTCACTGATCAGAAATCACTCTGTTGGAGATCTCCATCCGCGTACCGTATC 369
 DB 2854 ATAAATTAATGATGAAATTAATTCGGCTGGAATATCTATTAGGGTATATAGATA 2913
 QY 370 ATCTGACTCTGATCATCAACGCTGAAGACCAATCTGATTTCTCGAATACAACTC 429
 DB 2914 ATATGACTTTAATGATATAAATGAAACCAATCGGTATTTTGAATATACATA 2973
 QY 430 CGTGAGACATCTGATCATCACTCACTCGTGGTCTCTGTTTACCATCACCATACTG 489
 DB 2974 AGAAGATATATCAGAGATATAAATAGATGGTTTGTGTAATATATCTAATAATTTG 3033
 QY 490 ACAAATGCTAAATCTACATCAACGCTGAACTGGAATCTAATACCGACATCAAGACATC 549
 DB 3034 AATAAGCTTAAATTTATATTAATGTTAGCTAGATCAATACAGATATTAAGATATA 3093
 QY 550 CGUGAAGTTATCGCTAAGCGTGAATATCTTCAAACTGGACGCTGATCGATCGTACC 609
 DB 3094 AGAAGATTTATTCCTAATGGTGAATATATTTAAATAGATGGTATAGATAGATA 3153
 QY 610 CAGTTCATCTGATGAATATCTTCCATCTTCAACACCGAATCTCTCAGTCCAAATC 669
 DB 3154 CAATTTATTTGATGAATATTTTCACTATTTTATACGGAAATTAAGTCAATCAATATT 3213
 QY 670 GAAGAACGTTACAGATCCAGTCTTACTCCGAATACCTGAAAGACTTCTGGGTPAATCCG 729
 DB 3214 GAAGAAAGATATAAATTTCAATCATATAGCGAATATTTAAAGATTTTGGGGAATCTCT 3273
 QY 730 CTGATCTACAAAGAACTATATATGTTCTCATCTGCTGCTACAGAACTCTTACATCAA 789
 DB 3274 TTAATGTCAATAAAGATATTTATGTTTAAATGGGGAATAAATATCATATATATAA 3333
 QY 790 CTGAAGAAAGACTCTCCGGTTGGTGAATCTGACTCTGCTTCCAAATCAACACCAAGACTCT 849
 DB 3334 CTAAGAAAGATTTACCTCTAGTGAATTTTAAACAGCTAGCAATATATCAAAATCT 3393
 QY 850 AATACATCAACTACCGGCTGATCTGCTGTTGAAAGTTTCATCTCAGCTCGGCAATCT 909

RESULT 11

US-10-271-012-41
 ; Sequence 41, Application US/10271012
 ; GENERAL INFORMATION:
 ; APPLICANT: Williams, James A.
 ; Thalley, Bruce S.
 ; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
 ; Botulinum Neurotoxin
 ; NUMBER OF SEQUENCES: 82
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Medlen & Carroll
 ; STREET: 220 Montgomery Street, Suite 2200
 ; CITY: San Francisco
 ; STATE: California
 ; COUNTRY: United States of America
 ; ZIP: 94104
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patent in Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/10/271.012
 ; FILING DATE: 15-Oct-2002
 ; CLASSIFICATION: <Unknown>
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/704.159
 ; FILING DATE: <Unknown>
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Ingolia, Diane E.
 ; REGISTRATION NUMBER: 40,027
 ; REFERENCE/DOCKET NUMBER: OPND-02304
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (415) 705-8410
 ; TELEFAX: (415) 397-8338
 ; INFORMATION FOR SEQ ID NO: 41:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 3876 base pairs

DB 3394 AAATATATAAATTTATAGAGATTTATATATTGGAGAAAAATTTATTTATAGAGAAAGTCA 3453
 QY 910 AACTCTCAGTCCATCAATGATGACATCGTAGCTAAAGAGACATCTACCTGGACTTC 969
 DB 3454 AATCTCAATCTATAAATGATGATATAGTTAGAAAAGAGATTATATATCTAGATTTT 3513
 QY 970 TTCACCTGAATCAGGAATGCCGTGTATACACCTACAGTACTTCRAAGAAAGAGAGAA 1029
 DB 3514 TTTAATTTAAATCAAGAGTGGAGAGTATATACCTATAAATTTTAAAGAAAGAGAGAA 3573
 QY 1030 AAGCTTTTCCCTGGCTCCGATCTCTGATTCGGACGAACCTCTACACACCATCCAGATCAA 1089
 DB 3574 AAATGTTTGTAGTCCCTATTAAGTGATTTCTGATGAGTTTACATACTACTACAAATAAAA 3633
 QY 1090 GAATACGACGACACGCCACCTACTCTTCCAGCTGCTTCAAGAAAGATGAGATCT 1149
 DB 3634 GAATATGATGACACGCCAACATATAGTTGTGCTGCTTTTAAAGAAAGATGAGAAAGT 3693
 QY 1150 ACTGACGAAATCGGTCTGATCGTATCCACCGTTTCTACGAATCTGGTATCTGATTCGAA 1209
 DB 3694 ACTGATGATAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 3753
 QY 1210 GAATACAAAGACTACTTCTGATCTCCAAATGGTACCTGAAGNAAGTTAAACGCAACCG 1269
 DB 3754 GAGTATAAGATTTATTTGTTATAGTAAATGGTACTTAAAGAGGTAAAGAAAGAACCA 3813
 QY 1270 TACAACCTGAACTGGGTGCAATTTGCGAGTTCATCCGAAAGACGAAAGTTCGACCGAA 1329
 DB 3814 TATAATTTAAATTTGGGATGTAATGGCAGTTTATTCCTAAAGATGAAGGTGAGCTGAA 3873
 QY 1330 TA 1331
 DB 3874 TA 3875

Db 2794 ATAAGAACTCTAAATATAAGAAATGATGGTATACAAAATTTATTTCAATATCAATATACA 2853
QY 310 ATCATCACTGCAATGAAGAAATACACTCTGTTGGAGAACTCCATCCGGGTAACCGGTATC 369
Db 2854 ATAATTAATTTGTAAGAAATATTCGGGCTGAAATATCTATTAGGGGTAATAGGATA 2913
QY 370 ATCTGGACTCTGATCATCAACGGTAAGACCAATCTGTTCTTCCGAATACAAACATC 429
Db 2914 ATATGGACITTAATTTGATTAATGAAAGAAACCAATCCGGTATTTTGAATATAACATA 2973
QY 430 CGTGAAGACATCTCTGAATACATCAACGGTAAATCTTAATCCGACATCAAGACATC 549
Db 2974 AGAAGAGATATACAGAGTATATAAATAGATGGTTTTTGTAACTATTACTAATAATTG 3033
QY 490 AACAATCTGAAATCTACATCAACGGTAAATCTTAATCCGACATCAAGACATC 549
Db 3034 AATAACGCTTAATTTATTAATGTTAGTAAATCAATACAGATATTAAAGATATA 3093
QY 550 CGTGAAGTATTCGCTAACCGTGAATATCTCTTCAACACTGGAGCGGTGACATCGATGACC 609
Db 3094 AGAAGAGTATTAATGCTAATGCTGAATATAATTTAAATAGATGGTGCATAGATAGAACA 3153
QY 610 CAGTTCATCTGATGAAATCTCTCATCTTCAACACCGAACTGCTCAGTCCGAATATC 669
Db 3154 CAATTTATTTGGATGAATATTTTCAGTATTTTAAATACGGAAATTAAGTCAATCAATATT 3213
QY 670 GAAGACGGTACAGAGTCCAGTCTTACTCCGAATACCTCGAAAGACTTCTGGGTAATCCG 729
Db 3214 GAAGAAAGATATAAATTTCAATATAGCGAATATTTAAAGATTTTGGGGAATCCCT 3273
QY 730 CTGATGTACAAAGAAATGATATTTGTTCAATGCTGGTGAACAAAGACTCTTACATCAAA 789
Db 3274 TTAATGTAGAAATGAAGAAATATTTATGTTTAAATGCGGGAATTAATAATTCATATTA 3333
QY 790 CTGAAGAAAGACTCTCGGTTGGTGAATCTGACTCGTTCCTCAAAATACAAACAGAACTCT 849
Db 3334 CTAAAGAAAGACTCACTCGTGTAGTGAATTTTAAACAGTGAATATAATCAAAATCT 3393
QY 850 AATACATCACTACCGGACCTGATGTTCAATGCTGGTGAACAAAGACTCTTACATCGGTA 909
Db 3394 AAATATAAATATATAGAGATTTATATATTTGGAGAAATTTTATTAAGAAAGAAAGTCA 3453
QY 910 AACCTCTCAGTCCATCAATGATGATGATGATAGTTAGTGAAGAAAGACTTACATCTGAC 969
Db 3454 AATCTCAATCTATAATGATGATATAGTTAGAAAGAAAGATATATATCTAGATTTT 3513
QY 970 TTCAACTGAAATCAGGAATCGGCTGATACCTCAACAGTACTTCAAGAAAGAAAGAA 1029
Db 3514 TTTAAATTAATCAAGAGTGGAGATATATACCTATAATATTTTAAAGAAAGAAAGAA 3573
QY 1030 AAGCTTTTCTGCTCGATCTCTGATTCGGAGAACTCTACAAACCACTCCAGATCAAA 1089
Db 3574 AATTTGTTTTAGCTCTATAAGTGAATCTGATGATGATTTAGAACTATACAAATATA 3633
QY 1090 GAATACAGACAGACCGGCTACTCTTCCAGCTGCTGCTTCAAGAAAGATGAAGAACT 1149
Db 3634 GAATGATGAACAGCCACATATSTGTTGCTGCTTTTAAAGAAAGATGAAGAAAGT 3693
QY 1150 ACTCAGAAATCGTCTGATGCTGATCCCGTTCTACGAACTCTGATGCTGATTCGAA 1209
Db 3694 ACTGATGAGATGAGATTTGATTTGATTTATCTGTTTCTAGAACTCTGAAATGTTTAA 3753
QY 1210 GAATACAAAGACTACTTCTGCATCTCCAATGTTACTTGAAGAAAGTTAAACGCAACCG 1269
Db 3754 GAGTATAAGATATTTTGTATAAGTAAATGTTAGTAAAGAGAGTAAAGAAAGAAACA 3813
QY 1270 TACAACCTGAACTGGGTTGCAATGGCAGTTCATCCGAAAGACCAAGGTTGGACGAA 1329
Db 3814 TATAATTTAAATTTGGGATGTAATGGCAGTTTATTTCCTAAGAGATGAAGGGTGAAT 3873
QY 1330 TA 1331
Db 3874 TA 3875

RESULT 13

US-10-051-952-3
; Sequence 3, Application US/10051952
; GENERAL INFORMATION:
; APPLICANT: Walker, Patricia
; TITLE OF INVENTION: Methods of Administering Botulinum Toxin
; FILE REFERENCE: 2933CIP
; CURRENT APPLICATION NUMBER: US/10/051,952
; CURRENT FILING DATE: 2002-01-17
; PRIOR APPLICATION NUMBER: 09/730,237
; PRIOR FILING DATE: 2000-12-05
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 3876
; TYPE: DNA
; ORGANISM: botulinum toxin
US-10-051-952-3

Query Match 54.9%; Score 736; DB 39; Length 3876;
Best Local Similarity 72.2%; Pred. No. 3.4e-192;
Matches 955; Conservative 1; Mismatches 366; Indels 0; Gaps 0;

QY 10 ATGCCCAACAATACAAATCCGAAATCCGAAATCAATATCATCTCGAACCTCGGTTACAAA 69
Db 2554 ATGTTTAAATAATATATAGCGAAATTTTAAATAATATATATCTTAAATTTAAGATATAAG 2613
QY 70 GACAACAATCTGATCGATCTGCTGTTTACGGTCTAAAGTTGAAAGTATACACGGTCTT 129
Db 2614 GATATAATTTAATAGATTTATCAGATATGGGCAAGGTAGAGGTATATGATGAGATC 2673
QY 130 GAACTGAATGACAAAGAACCGAGTCAAACTGACCTCTTCGGTAACTCTAAGATCCGTT 189
Db 2674 GAGCTTAATGATAAAAATCAATTTAAATTAAGTCTAGTTCAGCAATAGTAAGATAGAGT 2733
QY 190 ACTCAGAACTCAGAACTCATCTTCAACTCCGTTATCTCTGGACTCTCTGTTTCCCTTCGG 249
Db 2734 ACTCAAAATCAGAAATATCATATTTAATAGTGTCTTCTGATTTTAGCGTTAGCTTTGG 2793
QY 250 ATTCTGATCCCGAAATACAAGAACGAGTATCCAGAAATACATCCAAATGAATACACC 309
Db 2794 ATAAGAATACCTAAATATAAGAAATGATGTTATACAAAATATATTTCAATGAATATACA 2853
QY 310 ATCATCACTCTGATGAGAAATCACTGCTGTTGGAAGTCTCCATCCGCGTAACCGTATC 369
Db 2854 ATAATTAATTTGATGAAATTAATTCGGCTGGAATATCTATTAGGGGTAATAGGATA 2913
QY 370 ATCTGACTCTGATCGATATCAACGGTAAAGACCAAAATCTGTTCTTCCAAATACAAATC 429
Db 2914 ATATGACTTTAATTCATATAAATGGAAACCAAAATCGGTATTTTGTGAATATAACATA 2973
QY 430 CGTGAAGACATCTCTGAATACATCAATCCCTGGTCTTCTGTTACCATCACCATAACCTG 489
Db 2974 AGAAGAGATATACAGAGTATATAAATAGATGGTTTTTGTAACTATTACTAATAATTG 3033
QY 490 AACAATCTGAAATCTACATCAACGGTAAATCTTAATCCGACATCAAGACATC 549
Db 3034 AATAACGCTTAATTTATTAATGTTAGTAAATCAATACAGATATTAAAGATATA 3093
QY 550 CGTGAAGTATTCGCTAACCGTGAATATCTTCAACACTGGAGCGGTGACATCGATGACC 609
Db 3094 AGAAGAGTATTCGCTAACCGTGAATATTTAAATAGATGGTTTAAAGATATAGATAGAACA 3153
QY 610 CAGTTCATCTGGAATGAATCTCTCCATCTTCAACACCGAACTCTCTCAGTCCCAATATC 669
Db 3154 CAATTTATTTGGATGAATATTTTCAATATTTTAAATAGTAAAGTAAAGTAAATAT 3213
QY 670 GAAGACGGTACAGAGTCCAGTCTTACTCCGAATACCTCGAAAGACTTCTGGGTAATCCG 729
Db 3214 GAAGAAAGATATAAATTTCAATATAGCGAATATTTAAAGATTTTGGGGAATCCCT 3273

QY	730	CTGATGTACACAAAGAATCTATATGTTCAATGCTGGTATCAAGAAGACTCTTACATCAAA	7899
DB	3274	TTAAATGTAGAATAAAGAATATATATGTTTAAATCGGGGAATAAAATTCATATATAAA	3333
QY	790	CTGAAGAAGACTCTCCGGTTGGTGAATCTCTGACTCGTTCCAAATACAAACCAAGACTCT	849
DB	3334	CTAAAGAAAGATTCACTGTAGGTGAAATTTTAAACAGTACCAAATATAATCAAAATCTCT	3393
QY	850	AAATACATCAACTACCGGACCTGTACATCGGTGAAAAGTTTCATCATCCGTGCGAAATCT	909
DB	3394	AAATATATAAATTATAGAGATTATATATTGGGAAAATTTATATAAGAAAGAAAGTCA	3453
QY	910	AACCTCAGTCCCATCAATGATGACATCTGACGTAAAGAAGACTACATCTACCTGGACTTC	969
DB	3454	AAATCTCAATCTATAAATGATGATATAGTTAGAAAGAAGATTATATATCTAGATTTT	3513
QY	970	TTCAACCTGAATCAGGAATGGCTGTATACACCTACAAGTACTTCAAGAAGGAAGAGAA	1029
DB	3514	TTTAAATTAATCAGAGTGGAGAGTATATACCTATAAATATTTTAAAGAAGGAAGAA	3573
QY	1030	AGCTTTTCTCGCTCGACTCTGATTCGACGAACTCTTACAACACCATCCAGATCAAA	1089
DB	3574	AAATTGTTTTTASCTCCATAAAGTAGTATCTGATGAGTTTTAGAATATCTACAAATAAA	3633
QY	1090	GAATACGCGAAACAGCCGACCTACPTCTGCCAGCTGCTGTTCAAGAAGATGAAGAATCT	1149
DB	3634	GAATATGATGAACACCCACACATATATTTGTTCAGTTGCTTTTAAAGAAGATGAAGAA	3693
QY	1150	ACTGCGAAATCGGTCTGATCGGTATCAACCGTTTCTACGAATCTGGTATCGTATTCGAA	1209
DB	3694	ACTGATGAGATAGGATTGATTGGTATTCACTGTTCTTAGGAATCTGGAATGTATTGAA	3753
QY	1210	GAATACAAAGACTACTCTGCATCTCCAAATGGTACCTGAAGGAAGTTAAACGCAACCG	1269
DB	3754	GAGTATAAGATTATTTTGTATAAGTAAATGGTAGTTAAAGAAGGTAAAAAGGAACCA	3813
QY	1270	TACAACCTGAACCTGGGTGCATTTGGCAGTTTCATCCGAAAGCAGAGGTTCGACCGAA	1329
DB	3814	TATAATTTAAATTTGGGATGTAATTTGGCAGTTTATCTCTAAGATGAAGGGTGGACTGAA	3873
QY	1330	TA 1331	
DB	3874	TA 3875	

RESULTS

RESULTS
US-09-547-188-3

US-09-347-188-3 : Sequence 3: Application US/09547188

: sequence 3, Applical.
: GENERAL INFORMATION:

APPLICANT: Kadhodavan. Saloumeh

APPLICANT: Balhorn, Rod

REF ID: A61011, KOD
; TITLE OF INVENTION: Chimeric Biotoxins for Intracellular Delivery

FILE REFERENCE: 17530-742 BIOTOXIN SEO LISTING

REFERENCE: 1730 742 BIOGAM PER ELECTION
: CURRENT APPLICATION NUMBER: US/09/547,188

; CURRENT FILING DATE: 2000-04-11
 ; CURRENT FILING DATE: 2000-04-11
 ; CURRENT FILING DATE: 2000-04-11

NUMBER OF SEO ID NOS: 14

: SOFTWARE: PatentIn Ver. 2.0

; SOFTWARE. FACILITY VER. 2.0
; SEO ID NO 3: SEQ ID NO: 3
: LENGTH: 4051

LENGTH: 4031
TYPE: DNA

ORGANISM: *Clostridium botulinum*

US-09-547-188-3

05-09-347-100-3

Query Match 49.58: score 663.4: DB 21: Length 4051:

Query Match 45.5%; score 003.4; DB 21;
Best local similarity 68.5%; pred. No. 4.4e-172;

Best Local Similarity: 0.656, Fied: NO: 4.4e-172,
Matches 916: Conservative 0: Mismatches 421:

Matches 310; conservative 0; mismatches 421; indels 0; gaps 0;

3 ATTCAACGATGCGCCACCAATACCAATCCGACCAATCATCTGACACTGGG 62

QY 3 ATT CAC GAT GGC CAC CAA TAC AAT TCC GAA ATCC TGA CAA TAT C ATCC TGA ACC TGG 82

[illegible]

UD 2643 AATAAAAATATTTAAATAATATAGCGAAATTTAAATAATATATCTTAAATTTAAG 2702

[illegible]

QY 63 TTACAAAGACACAATCTGTATCGATCTGTCTGGTTACGGTGTAAAGTTGAAGTATACGA 122

Db	2703	ATATAGAGATATAATTAATTAATAGATTTATACAGGATATGAGCAAAAGGTAGAGTATATGA	2766
QY	123	CGGTGTTGAACGTGATGACAAAGAACCGAGTTCCAAACTGACCTCTCCGCTAACTCTCAAGAT	182
Db	2763	TGGGGTCAAGCTTAATGATATAAAATCAATTTAAATTAACCTAGTTACAGACAGATAGTAAGAT	2822
QY	183	CGGTGTTACTCAGAAATCAGAACATCATCTTCCAACTCCGTATTCTCGTGACATTCCTCTGTTTC	242
Db	2823	TAGAGTCACCTCAAAATCAGAAATATATATTTAATAGTATGTTCTCTTGATTTTAGCGGTAG	2882
QY	243	CTTCTGGATTCGTATCCCGGAATATACAGAAGACGGGTATCCAGAAATTTACATCCACAAATGA	302
Db	2883	CTTTTGGATPAAGGATACCTTAATATATAGGAATGATGATATACAAATTTATATTCATATAGA	2942
QY	303	ATACACCATCATCAACTGCATGAAGAATTAACCTCTGTTGGAAGATCTCCATCCGCGGTAA	362
Db	2943	ATATAGGATAATTAATTTGTATGAAAATAAATTCAGGCTGGAAAATATCTATTAGGGGTAA	3002
QY	363	CGGTATCATCTGGACTCTGTATCGATATCAACGGTAAAGCCAAATCTGTATTTCTCGAATA	422
Db	3003	TAGGATAATATGGACCTTAATTTGATATTAATTTGGAATAACCAATTCAGTATTTTGTGAATA	3062
QY	423	CAACATCCGTGAAGACATCTCTGATACATCAATCACTCGCTGGTCTCTCGTTACCATCACCAA	482
Db	3063	TAACATAACAGAAGATATATCAGAGTATATAAATAGATGGTTTTTGTGTAATACTATTACTAA	3122
QY	483	TAACGTGACAATGCTAAAACTACATCAAGGGTAAACTGGAACTCTAAATACCCACATCAA	542
Db	3123	TAATTTGGATATATGCTAAATTTATATTAATTTGGCAGCTTGAATTCAAATATGGATATTA	3182
QY	543	AGACATCCGTGAAGTATTGCGTTAAACGGTGAATCATCTTCAAACTGACCGGTGACATPCGA	602
Db	3183	AGATATAGGAGAAGTTATTGTTAATGGTCAATAACATTTAAATTAGATGGTGATGTAGA	3242
QY	603	TGTTCCCAAGTTTCANCTGGATGAATACTCTCCATCTTCAACACCGCAACTGCTCTCAGTC	662
Db	3243	TAGAACACAATTTTATTGGATGAATAATTTTAGTATATTTTATACGCAATTAATCAATC	3302
QY	663	CAATATCGAAGAACGGTACAGATCCAGTCTTACTCCGAATACCTGAAAGACTCTTGGGG	722
Db	3303	AAATATTAAGAGATATATAAAATTCATATCATATAGCGAATACATTAAGAGATTTTGGGG	3362
QY	723	TATCCGCTGATGTACACAAGAATACTATATGTCAATGCTGGTAAACAAGAACTCTTA	782
Db	3363	AAATCCTTTAATGTTAATAAAGAATATATATGTTTATCGGGGAATAAAAATTCATA	3422
QY	783	CATCAAACTGAAGAAGACTCTCCGGTTGGTGAATCCGTACTCGTTTCCAAATACAAACCA	842
Db	3423	TATTAACATAGTGAAGATTCTCTGTAGTGAATATTAATAGTACGTAACAAATATATCA	3482
QY	843	GRACTCTAATACATCAACTACCGGACCTGTACATCGGTGAAAAGTTTCATCCCGTCG	902
Db	3483	GAATTCCAATTTATATAAATATAGAAATTTATATATTGGAGAAAATTTATTTAAGAAG	3542
QY	903	CAAACTAACTCTCAGTCGCATCAATGATGACATCGTACGTAAAGAAGACTACATCTACCT	962
Db	3543	AGAGTCAAAATCTCAACTCTATAAATGATGATAGTTAGTATAGAAAAGAAGATATATACATCT	3602
QY	963	GGACTTCTTCAACCTGAATCAGGAATGGCGTGTATACACCTACAAGTACTTCAAGAAAGA	1022
Db	3603	AGATTTTGGTACTTCCACCTGAASAGTGGAGAGTATATGCTTATAAATTTTAGGAACA	3662
QY	1023	AGAAGAAAAGCTTTTCTCGGCTCCGATCTCTGATTCGCAAGCACTCTACAAACCACTCCA	1082
Db	3663	GGAAAGAAAATGTGTTTTTATCTATTATAAGTGATTTCTAATGAATTTTATAGACTATAGA	3722
QY	1083	GATCAAGAATATCGAGCAACACCGCACCTCTCTTGGCCAGCTGCTGTTCAGAAAGATGA	1142
Db	3723	ATAAAGAATATGATGAACACCCATCATATAGTTGTCAGTTGCTTTTAAABAAGATGA	3782
QY	1143	AGAATCTACTGAGAAATCGGTCTGATCGGTATCCAGCTTTCTACGAATCTGGTATCGT	1202
Db	3783	AGAAAGTACTGATGATATAGGATGATGATGGTATTCATCGTTTCTACGAATCTGGAGTTT	3842

QY	1203	ATTCGAAGAATACAAAGACTACTTCTGCATCTCCAAATGGTACCTGAAGGAAGTTAAACG	1262
Db	3843	ACGTAAAAGATATAAGATATTATTTGTATAGTAATGGTACTTTAAAGAGGTAAAAAG	3902
QY	1263	CAAACCGGTACACCTGAAACTGGGTTCGCAATTCGCAGTTCATCCGGAAGACGAAGGTTG	1322
Db	3903	GAACACATATAAGTCAAAATTTTGGGATGAATTCGCAGTTATTCTTAAAGATGAAGGGTG	3962
QY	1323	GACCGAATAGTAAAGAT	1339
Db	3963	GACTGAATAATATACT	3979
RESULT 15			
	PCT-US97-15394-43		
	Sequence 43, Application PC/TUS9715394		
	GENERAL INFORMATION:		
	APPLICANT: Williams, James A.		
	APPLICANT: Thalley, Bruce S.		
	TITLE OF INVENTION: Multivalent Vaccine For Clostridium		
	TITLE OF INVENTION: Botulinum Neurotoxin		
	NUMBER OF SEQUENCES: 82		
	CORRESPONDENCE ADDRESS:		
	ADDRESSEE: Medlen & Carroll		
	STREET: 220 Montgomery Street, Suite 2200		
	CITY: San Francisco		
	STATE: California		
	COUNTRY: United States of America		
	ZIP: 94104		
	COMPUTER READABLE FORM:		
	MEDIUM TYPE: Floppy disk		
	COMPUTER: IBM PC compatible		
	OPERATING SYSTEM: PC-DOS/MS-DOS		
	SOFTWARE: PatentIn Release #1.0, Version #1.30		
	CURRENT APPLICATION DATA:		
	APPLICATION NUMBER: PCT/US97/15394		
	FILING DATE:		
	CLASSIFICATION:		
	ATTORNEY/AGENT INFORMATION:		
	NAME: Ingolia, Diane E.		
	REGISTRATION NUMBER: 40,027		
	REFERENCE/DOCKET NUMBER: OPD-02304		
	TELECOMMUNICATION INFORMATION:		
	TELEPHONE: (415) 705-8410		
	TELEFAX: (415) 397-8338		
	INFORMATION FOR SEQ ID NO: 43:		
	SEQUENCE CHARACTERISTICS:		
	LENGTH: 1526 base pairs		
	TYPE: nucleic acid		
	STRANDEDNESS: double		
	TOPOLOGY: linear		
	MOLECULE TYPE: other nucleic acid		
	DESCRIPTION: /desc = "DNA"		
	FEATURE:		
	NAME/KEY: CDS		
	LOCATION: 108..1523		
	PCT-US97-15394-43		
	Query Watch	49.4%;	Score 662.8; DB 1; Length 1526;
	Best Local Similarity	68.8%;	Pred: No. 4.2e-172;
	Matches 910; Conservative	0; Mismatches 412;	Indels 0; Gaps
QY	10	ATGGCCACAATAACATAATCCGAAATCTCGAACATATCATCTCGAACCTCGGTACAAA	69
Db	204	ATGTTTAAATAATAATAATAGCGAAATTTTAAATAATATTATCTTAAATTAAGATATAGA	263
QY	70	GACAAACAATCTGATCGATCTGCTGGTTACGGTGTCTAAAGTTGAAGTATACAGCGGTGTT	129
Db	264	GATAATAATTTAATAGATTATCAGGATATGAGCAAGGTAGAGTATATGATGGGGTC	323
QY	130	GAACTGAATGACAAGAACCGAGTTCAAACTGACCTCTCCGGTAACTCTAAGATCCGGTGT	189

324	Db	AGCTTAATGATAAAAAATCAATTTAAATTAACCTAGTTCACGAGATAGTAGATTAGAGTC	383
190	QY	ACTCAGAATCAGAAACATCACTTCAACACCCGATTCTCTGGACACTTCTCTGTTCCCTCTGG	249
384	Db		443
250	QY		309
444	Db	ATAAGGATACCTTAAATATAGGAATGATGATACAAAATTATATCTAATAATGAATATACG	503
310	QY	ATCATCAACTGCATGAAGAATAAACCTCGTGGTGGAGATCTCCATCCCGGTAAACCGTATC	369
504	Db		563
370	QY	ATCTGGACTCTGATCGATATCAACGGTAAGACCAGAAATCTGTTATTTCTGGAATACACATC	429
564	Db		623
430	QY	CGTGGAGACATCTCTGAATACATCAATCACTCGCTGGTCTCTCGTTCACATCACCATAACCTG	489
624	Db		683
490	QY	AACAAATGCTAAATCTTACATCAACCGTAAACTGGAATCTAATACCGACATCAAGACATC	549
684	Db		743
550	QY	CGTGAAGTATCGCTAACGGTGAATCATCTTCAACTGGACGGTGCACATCGATCGTACC	609
744	Db		803
610	QY	CAGTTCATCTGGATGAATACCTTCCACTCTTCAACCGCAACTGTCTCAGTCCCAATATC	669
804	Db		863
670	QY	GAAGAACGGTACAGATCCAGTCTTACTTCGGAATACCTGGAAGACTTCTGGGTTAATCCG	729
864	Db		923
730	QY	CTGATGTCACAAAGAAATPACTATATGTTCAATGCTGGTAAACAAGAACTCTTACATCAAA	789
924	Db		983
790	QY	CTGAAGAAAGACTCTCGGTTGGTGAAPCTCGACTCTTCCAAATACACACCGAACTCT	849
984	Db	CTAGTGAAGAGTTCATCTCTAGTGGAAATATAATACGTAGCAAAATAATACAGAAATCC	1043
850	QY	AAATACATCAACTACCGCACTGTACATCGGTGAAAAGTTCATCATCGCTCGCAATCT	909
1044	Db		1103
910	QY	AACTCTCAGTCCATGAATGACATCGTAGCTAAGAAAGACTACATCTACCTGGAGCTTC	969
1104	Db		1163
970	QY	TTCAACTGAATCAGGAATGGCTGTATACACCTPACAGTACTTTCAGAAGAGAGAGAA	1029
1164	Db	GTACTTCCACCATGAAGAGTGGAGATGATGCTTATAAATTTTAAAGAACAGAGAA	1223
1030	QY	AAAGTTTTCTGTGCTCCGATCTGATTCGACCGCAACTCTTACAACACCATCCAGATCAAA	1089
1224	Db		1283
1090	QY	GAATACGACAGACGGCACTACTCTTCTGCGAGCTGTGTTCAAGAAGATGAGAATCT	1149
1284	Db	GAATATGATGAACAGCCATCATATAGTTGTCACTGTGCTTTTTTAAAGAGATGAAGAAGT	1343
1150	QY	ACTGACGAAATCGTCTGATCGGTATCCACCGTTCTTACGAATCTGGTATCGTATTCGAA	1209
1344	Db		1403
1210	QY	GAATACAAAGACTTACTCTTCATCTCCAAATGGTACCTGGAAGAGTTAAACCGAAACCG	1269
1404	Db	AAAGTATAAGATTTATTTGTATAAGTAAATCGTACTTAAAGAGGTAAAGAGAAACCA	1463

QY 1270 TACAACTGAACTGGTTCGAATTGGCAGTTCATCCGGAAGACGAGGTTGGACCGAA 1329
Db 1464 TATACTCAATTTGGGATGTAATTGGCAGTTTATTCCTAAGATGAGGGTGGACTGAA 1523

QY 1330 TA 1331
Db 1524 TA 1525

Search completed: November 1, 2002, 08:15:27
Job time : 3301 secs

GenCore version 5.1.3
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OM nucleic - nucleic search, using sw model

Run on: November 1, 2002, 07:16:43 ; Search time 18 Seconds
(without alignments)
1485.488 Million cell updates/sec

Title: US-09-910-186A-7
Perfect score: 1341
Sequence: 1 gaattcagtaggccaacaa.....ggaccgaatagtaagattc 1341

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 10552 seqs, 9969721 residues

Total number of hits satisfying chosen parameters: 21104

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Pending Patents_NA_New:*
1: /cgn2_6/ptodata/1/pna/US06_NEW_COMB.seq:*
2: /cgn2_6/ptodata/1/pna/US07_NEW_COMB.seq:*
3: /cgn2_6/ptodata/1/pna/US07_NEW_COMB.seq:*
4: /cgn2_6/ptodata/1/pna/US08_NEW_COMB.seq:*
5: /cgn2_6/ptodata/1/pna/US09_NEW_COMB.seq:*
6: /cgn2_6/ptodata/1/pna/US10_NEW_COMB.seq:*
7: /cgn2_6/ptodata/1/pna/US60_NEW_COMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	33.2	2.5	15645	6	US-10-085-198-111
2	32.6	2.4	2358	6	US-10-092-411A-1029
3	32	2.4	1854	6	US-10-092-411A-1175
4	32	2.4	2335	6	US-10-092-411A-1515
5	32	2.4	3561	6	US-10-092-411A-1685
6	32	2.4	6414	6	US-10-092-411A-1626
7	31.8	2.4	2211	6	US-10-092-411A-818
8	31.6	2.4	80246	5	US-09-728-552-4
9	31	2.3	1236	6	US-10-092-411A-284
10	30.8	2.3	1524	1	PCT-US02-05068-179
11	30.8	2.3	8451	6	US-10-240-454-14
12	30.6	2.3	3558	6	US-10-092-411A-2439
13	30.2	2.3	3390	6	US-10-268-838-1
14	30	2.2	6219	6	US-10-240-454-20
15	29.8	2.2	1032	1	PCT-US02-12342-2
16	29.8	2.2	1149	1	PCT-US02-12342-1
17	29.8	2.2	1376	1	PCT-US02-12342-4
18	29.8	2.2	1437	1	PCT-US02-12342-3
19	29.8	2.2	1440	6	US-10-092-411A-1291
20	29.6	2.2	1287	6	US-10-092-411A-964
21	29.6	2.2	17527	6	US-10-240-454-27
22	29.4	2.2	537	6	US-10-092-411A-2727
23	29.4	2.2	1524	1	PCT-US02-05068-169
24	29.4	2.2	2567	6	US-10-264-237-395
25	29.4	2.2	3997	6	US-10-159-901-27
26	29.2	2.2	474	6	US-10-092-411A-1877

C 27	29.2	2.2	810	6	US-10-092-411A-2557	Sequence 2557, Ap
C 28	29.2	2.2	1074	6	US-10-092-411A-1568	Sequence 1568, Ap
C 29	29.2	2.2	1272	6	US-10-092-411A-2358	Sequence 2358, Ap
C 30	29.2	2.2	1332	6	US-10-092-411A-930	Sequence 930, App
C 31	29.2	2.2	1389	6	US-10-092-411A-1289	Sequence 1289, Ap
C 32	29.2	2.2	8238	6	US-10-240-454-43	Sequence 43, Appl
C 33	29	2.2	832	6	US-10-264-237-535	Sequence 535, App
C 34	29	2.2	1964	6	US-10-145-087A-441	Sequence 441, App
C 35	28.8	2.1	1263	6	US-10-092-411A-968	Sequence 968, App
C 36	28.8	2.1	1533	6	US-10-092-411A-1704	Sequence 1704, Ap
C 37	28.6	2.1	723	6	US-10-092-411A-2608	Sequence 2608, Ap
C 38	28.6	2.1	1539	1	PCT-US02-05068-113	Sequence 113, App
C 39	28.6	2.1	2061	6	US-10-145-087A-44	Sequence 44, Appl
C 40	28.4	2.1	942	6	US-10-092-411A-2784	Sequence 2784, Ap
C 41	28.4	2.1	1347	6	US-10-092-411A-1309	Sequence 1309, Ap
C 42	28.4	2.1	1620	6	US-10-092-411A-2281	Sequence 2281, Ap
C 43	28.2	2.1	1194	6	US-10-092-411A-1351	Sequence 1351, Ap
C 44	28.2	2.1	1407	6	US-10-092-411A-1162	Sequence 1162, Ap
C 45	28.2	2.1	8168	6	US-10-240-454-23	Sequence 23, Appl

ALIGNMENTS

RESULT 1
US-10-085-198-111
; Sequence 111, Application US/10085198
; GENERAL INFORMATION:
; APPLICANT: Alsbrook et al.
; TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
; FILE REFERENCE: 21402-279
; CURRENT APPLICATION NUMBER: US/10/085,198
; CURRENT FILING DATE: 2002-02-25
; PRIOR APPLICATION NUMBER: 60/271,646
; PRIOR FILING DATE: 2001-02-26
; PRIOR APPLICATION NUMBER: 60/276,401
; PRIOR FILING DATE: 2001-03-16
; PRIOR APPLICATION NUMBER: 60/311,981
; PRIOR FILING DATE: 2001-08-13
; PRIOR APPLICATION NUMBER: 60/312,858
; PRIOR FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: 60/271,840
; PRIOR FILING DATE: 2001-02-27
; PRIOR APPLICATION NUMBER: 60/277,324
; PRIOR FILING DATE: 2001-03-20
; PRIOR APPLICATION NUMBER: 60/286,096
; PRIOR FILING DATE: 2001-04-21
; PRIOR APPLICATION NUMBER: 60/299,695
; PRIOR FILING DATE: 2001-06-20
; PRIOR APPLICATION NUMBER: 60/315,614
; PRIOR FILING DATE: 2001-08-29
; PRIOR APPLICATION NUMBER: 60/272,405
; PRIOR FILING DATE: 2001-02-28
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 653
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 111
; LENGTH: 15645
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-085-198-111

Query Match 2.5%; Score 33.2; DB 6; Length 15645;
Best Local Similarity 46.5%; Pred. No. 5.1;
Matches 107; Conservative 0; Mismatches 123; Indels 0; Gaps 0;

QY 288	TTACATCCACATGAATACACCATCATCATGATGAGATACCTCTGGTGAAGAT 347
DB 9949	TTACAGCAGCTTACAGCAGCAGCAGCAGCTGCAACAGCAGCAGCAGCAGCAG 10008
QY 348	CTCCATCCGCGGTGATCATCTGGAATCTGATCGATATCAACGGTAAAGACCAATC 407
DB 10009	CACGACGAGCTACACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAG 10068

QY 408 TGTATTCTCGAATACAAATCCGTTGAGACATCTCTGAATACATCAATCGCTGTTCTT 467
Db 10069 CAGCAGCAGCTTCAACACAGCAGCAGCAACAGCTTCAACAGCAGCAGCAGCTACAA 10128
QY 468 CGTTACCATCAACAATAACCTGAACAATGCTAAATCTTACATCAACGGTA 517
Db 10129 CAGCAACAGCAACAACAGCAGCAGCTTCAACAGCAGCAGCAACGCA 10178
RESULT 2
US-10-092-411A-1029/c
; Sequence 1029, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A
; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 1029
; LENGTH: 2358
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-1029
Query Match 2.4%; Score 32.6; DB 6; Length 2358;
Best Local Similarity 53.5%; Pred. No. 3.5;
Matches 68; Conservative 0; Mismatches 59; Indels 0; Gaps 0;
QY 369 CATCTGACTCTCATCGATATCAACGGTAAGACCAAACTGTATTCTTGAATACAAAT 428
Db 703 CAACAAATCGGTTCAATATATAGTGTTCCTGATGCCGATGTCATGAACATAC 644
QY 429 CGGTGAAGACATCTCTGAATACATCAATCGGTGTTCTCGTTACCATCAACATACCT 488
Db 643 CATTGAATCTTCTATATATAGCTTTCACCGGAATAACATTCGATCAATTTCTTCTG 584
QY 489 GAACAAT 495
Db 583 TTACAAT 577
RESULT 3
US-10-092-411A-1175/c
; Sequence 1175, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A
; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 1175
; LENGTH: 1854
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-1175

Query Match 2.4%; Score 32; DB 6; Length 1854;
Best Local Similarity 50.7%; Pred. No. 4.5;
Matches 77; Conservative 0; Mismatches 75; Indels 0; Gaps 0;
QY 183 CGGTGTTACTCAGATCAAGACATCATCTTCAACTCCGTATTCGTGACTTCTCTGTTTC 242
Db 880 CCATGATAAGAAATTTGGAATAAGAAACCATAAACCAAGGAATCTAATTTTCGACCA 821
QY 243 CTTCGGATTCTGATCCCGAAATACAAGACGACGGTATCCAGAAATTCACATCCACATGA 302
Db 820 TCTCTCATTAGTTTAAAGTAAAGAACACGACACCCGGAAGAAATGCACCTAATATGT 761
QY 303 ATACACCATCATCAACTGCATGAGAAATAACT 334
Db 760 ATTACACCAACACACCTTCAGCAAGTGTACT 729
RESULT 4
US-10-092-411A-1515/c
; Sequence 1515, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A
; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 1515
; LENGTH: 2835
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-1515
Query Match 2.4%; Score 32; DB 6; Length 2835;
Best Local Similarity 49.4%; Pred. No. 5.3;
Matches 83; Conservative 0; Mismatches 85; Indels 0; Gaps 0;
QY 935 TCGTACGTAAAGAGACTACATCTACCTGGACTTCTTCAACCTGAATCAGGAATGGCGTG 994
Db 1639 TCGGACTCAACAAGTACGTCAACGTCAGAAAGTGCATCAACGTCACAGAGTGAGATGAC 1580
QY 995 TATACACCTACAAGTACTTCAAGAAAGAGAGAGAAAGCTTTTCTGCTCCGATCTCTG 1054
Db 1579 TCAACAAGTGAAGTACGTCAATTAAGCGAGTCGACGACCAAGCGTTTCAGATTCAACA 1520
QY 1055 ATTCCGACGAATCTACACACCATCCAGATCAAGAAATACGACGAAC 1102
Db 1519 AGCGGTGACATCCGACAGTGCATCAACATCAACGAGTGTGAGCGAC 1472
RESULT 5
US-10-092-411A-1685/c
; Sequence 1685, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A
; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14

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; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 1685
; LENGTH: 3561
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-1685

Query Match      2.4%; Score 32; DB 6; Length 3561;
Best Local Similarity 49.4%; Pred. No. 5.8;
Matches 83; Conservative 0; Mismatches 85; Indels 0; Gaps 0;

QY 935 TCGTAGCTAAAGAGACTACATCTACCTGGACTTCTTCAACTGAATCAGAAATGGCGTG 994
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 2435 TCGGACTCAACAAGTAGCTCAACGTCAGAAAGTGCATCAACGTCAGAGGTGAGAGTGAC 2376

QY 995 TATACACCTACAGTACTTCAGAAAGAGAGAGAAAGCTTTTCTGGCTCCGATCTCTG 1054
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 2375 TCACAAGTGAAGTAGCTGATTAAGCCGAGTCGAGCAAGCAAGCGTTTCAGATTCACA 2316

QY 1055 ATTCCGACGAATCTACACACCATCCAGATCAAGAATAGACGAAC 1102
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 2315 AGCGGCTGCACATCCGACAGTGCATCAACATCAACGAGTGTGAGCGAC 2268

RESULT 6
US-10-092-411A-1626
; Sequence 1626, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 1626
; LENGTH: 6414
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-1626

Query Match      2.4%; Score 32; DB 6; Length 6414;
Best Local Similarity 49.4%; Pred. No. 7.3;
Matches 83; Conservative 0; Mismatches 85; Indels 0; Gaps 0;

QY 935 TCGTAGCTAAAGAGACTACATCTACCTGGACTTCTTCAACTGAATCAGAAATGGCGTG 994
Db 3610 TCGGACTCAACAAGTAGCTCAACGTCAGAAAGTGCATCAACGTCAGAGGTGAGAGTGAC 3669

QY 995 TATACACCTACAGTACTTCAGAAAGAGAGAGAAAGCTTTTCTGGCTCCGATCTCTG 1054
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 3670 TCACAAGTGAAGTAGCTGATTAAGCCGAGTCGAGCAAGCAAGCGTTTCAGATTCACA 3729

QY 1055 ATTCCGACGAATCTACACACCATCCAGATCAAGAATAGACGAAC 1102
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 3730 AGCGGCTGCACATCCGACAGTGCATCAACATCAACGAGTGTGAGCGAC 3777

RESULT 7
US-10-092-411A-818/C
; Sequence 818, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A

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; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 818
; LENGTH: 2211
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-818

Query Match      2.4%; Score 31.8; DB 6; Length 2211;
Best Local Similarity 47.7%; Pred. No. 5.4;
Matches 93; Conservative 0; Mismatches 102; Indels 0; Gaps 0;

QY 387 TATCAACGGTAAGACCAATCTGTTTCGATATACATCAACATCCGTCGAAGCATCTCTGA 446
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1669 TATTGCGAATTTGTTATGATGTAACACCAACGCAATCCACAGCTGCGTACAAATCTTCAT 1610

QY 447 ATACATCAATCGCTGTTCTTCGTTTACCATCACCAATAACCTGAACATGCTAAAAATCTA 506
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1609 CATTAGCAAAATGRTATTTTTCATTAAAGACTTCTTAATTTTCTCAGTTAGATAATCTT 1550

QY 507 CATCAACGGTAAGTGGAAATCTAATACCGACATCAAGACATCCGTCGAAGTTATCGCTAA 566
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1549 CAACACGGAATCCTTGTCTTTAATCTCCGCTTACCATAAATTTACCTTTTTCATATAT 1490

QY 567 CGGTGAATCATCTT 581
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 1489 TAGAAAAACGATCTT 1475

RESULT 8
US-09-728-552-4/C
; Sequence 4, Application US/09728552
; GENERAL INFORMATION:
; APPLICANT: Choo, Kong-Hong Andy
; APPLICANT: Du Sart, Desiree
; APPLICANT: Cancilla, Michael R.
; TITLE OF INVENTION: A NOVEL NUCLEIC ACID MOLECULE
; FILE REFERENCE: Davies Col
; CURRENT APPLICATION NUMBER: US/09/728,552
; CURRENT FILING DATE: 2000-12-02
; PRIOR APPLICATION NUMBER: 09/078,294
; PRIOR FILING DATE: 1998-05-13
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 4
; LENGTH: 80246
; TYPE: DNA
; ORGANISM: Nucleotide sequence of NC-contig
US-09-728-552-4

Query Match      2.4%; Score 31.6; DB 5; Length 80246;
Best Local Similarity 50.0%; Pred. No. 24;
Matches 79; Conservative 0; Mismatches 79; Indels 0; Gaps 0;

QY 1179 CGCTTTCTACGAATCTGGTATCGTATTCGAAGATACAAAGACTCTTCGATCTCCAA 1238
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 32174 CTGTTTTTAGCCACCTGGTTTGTGATCTCTGTATGACAGCTGTGGGATACTAATCCAG 32115

QY 1239 ATGGTACCTGAAGAGAGTTAAACCGCAACCGTACAACTGAACTGGGTTCGAATTGSCA 1298
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 32114 GGCTTTCTAGAGTGAAGGAACTCCACCCCTACTCCCTAAGACAGGGTCCCAACTCCCT 32055

QY 1299 GTTCATCCCGAAAGACGAAGGTTGGACCGAATAGTAAG 1336
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db 32054 GGCCATGGACGATACCACTGTGTGACCTGTGTAGGAAG 32017

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RESULT 9
; Sequence 284, Application US/10092411a
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411a
; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 284
; LENGTH: 1236
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
US-10-092-411a-284

Query Match      2.3%; Score 31; DB 6; Length 1236;
Best Local Similarity 46.5%; Pred. No. 6.9;
Matches 100; Conservative 0; Mismatches 115; Indels 0; Gaps 0;

QY 261 GAATACAGACGACGATCCAGATTACATCCACAATGATACACCATCATCACTG 320
DB 442 GACCAACGTCACGACTTAACACCTTTAATCTTACGTAACCTTCAGCTCAATCACTT 383
QY 321 CATGAAGAATAACTCTGTTGGAAGATCTCATCCGCGGTAACCGTATCATCTGGACTCT 380
DB 382 CATCGTTATCTAGTTTCTTCTGTAATATTCATAAGATTTTTCAGTTTCAAGTTGCTTT 323
QY 381 GATCGATATCACGGTAAGACCAATCTGTTCTTCCGAATACACATCCGTAAGACAT 440
DB 322 TTGATTAATGATGCCCAAGATATCTTTCTTCTGCGAATCGATTTTAGTGACATATG 263
QY 441 CTCTGAATACATCAATCGCTGGTTCTTCGTTACCA 475
DB 262 CTTCGACTTCATCAGCGACTTTTACAACCTTCACTA 228

RESULT 10
PCT-US02-05068-179
; Sequence 179, Application PC/TUS0205068
; GENERAL INFORMATION:
; APPLICANT: Diversa Corporation
; TITLE OF INVENTION: ENZYMES HAVING ALPHA AMYLASE ACTIVITY
; TITLE OF INVENTION: AND METHODS OF USE THEREOF
; FILE REFERENCE: 09010-108W01
; CURRENT APPLICATION NUMBER: PCT/US02/05068
; CURRENT FILING DATE: 2002-02-21
; PRIOR APPLICATION NUMBER: US 60/270,495
; PRIOR FILING DATE: 2001-02-21
; PRIOR APPLICATION NUMBER: US 60/270,496
; PRIOR FILING DATE: 2001-02-21
; PRIOR APPLICATION NUMBER: US 60/291,122
; PRIOR FILING DATE: 2001-05-14
; NUMBER OF SEQ ID NOS: 321
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 179
; LENGTH: 1524
; TYPE: DNA
; ORGANISM: Environmental
PCT-US02-05068-179

Query Match      2.3%; Score 30.8; DB 1; Length 1524;
Best Local Similarity 46.3%; Pred. No. 8.4;
Matches 101; Conservative 0; Mismatches 117; Indels 0; Gaps 0;

QY 554 GTCTCAGTCCATTCGAGACGCGGTACAGATCCAGTCTTACTCCGATACCTGAGAGA 713
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DB 1074 GTTAGAGTCGACAGTGAATGGTTCAGGCTCTTGTAGGCATTCATCTTGTGG 1133
QY 714 CTCTGGGGTAATCCGCTGATGTACAAAGAATACTATATCTTCAATGCTGGTAACA 773
DB 1134 TGAAGAAGGTTATCCATCGGTGTTCTACGCAGATTACTACGGCGCAGTACAGCAAA 1193
QY 774 GAATCTTACATCAACTGAAGAAGACTCTCCGGTTGGTGAATCTCTGACTCGTTCCAA 833
DB 1194 AGTTTACACATTAATATGCGCAAGTGCCTTACATTAAGAACTTGTAACTCGGTAA 1253
QY 834 ATACAAACGAGAACTCTAAATACATCAACTACCGCGACC 871
DB 1254 AGAGTATCGGTATGCGCAACAGAAATCTTATCTCGACC 1291

RESULT 11
US-10-240-454-14/c
; Sequence 14, Application US/10240454
; GENERAL INFORMATION:
; APPLICANT: OLEK, Alexander
; APPLICANT: PIEPENBROCK, Christian
; APPLICANT: BERLIN, Kurt
; TITLE OF INVENTION: Diagnosis of Diseases Associated with Metabolism
; FILE REFERENCE: S013.1010
; CURRENT APPLICATION NUMBER: US/10/240,454
; CURRENT FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: PCT/EP01/04016
; PRIOR FILING DATE: 2001-04-06
; PRIOR APPLICATION NUMBER: DE 10019058.8
; PRIOR FILING DATE: 2000-04-06
; PRIOR APPLICATION NUMBER: DE 10019173.8
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: DE 10032529.7
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: DE 10043826.1
; PRIOR FILING DATE: 2000-09-01
; NUMBER OF SEQ ID NOS: 68
; SEQ ID NO 14
; LENGTH: 8451
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
US-10-240-454-14

Query Match      2.3%; Score 30.8; DB 6; Length 8451;
Best Local Similarity 50.0%; Pred. No. 16;
Matches 77; Conservative 0; Mismatches 77; Indels 0; Gaps 0;

QY 389 TCAACGGTAAGACCAAAATCTGTATTCTTCGAATACACATCCGTAAGACATCTCTGAAT 448
DB 731 TCTCCCTTAAAAAACCACCAAAATCATAAACAACCTTCTCAAAACATACAAAA 672
QY 449 ACATCAATCGCTGGTCTTCGTACCATCACCAATACCTGAACAATGCTAAATCTACA 508
DB 671 ACATAAACTATCGAACCGCGTAACCTACACCTATATCCCAACACTTTAAAAAACCGAA 612
QY 509 TCAACGGTAAACTGGAATCTAATACCGACATCAA 542
DB 611 ACAGCAATACACGAAATCAAAATTAACCA 578

RESULT 12
US-10-092-411a-2439/c
; Sequence 2439, Application US/10092411a
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411a
; CURRENT FILING DATE: 2002-03-07
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; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 2439
; LENGTH: 3558
; TYPE: DNA
; ORGANISM: Staphylococcus epidermidis
; US-10-092-411A-2439

Query Match      2.3%; Score 30.6; DB 6; Length 3558;
Best Local Similarity 46.5%; Pred. No. 13;
Matches 99; Conservative 0; Mismatches 114; Indels 0; Gaps 0;

QY 300 TGAATACCATCATCACTGATCGATGAAGATTAATCTCTGTTGGAAGATCTCCATCCGGG 359
DB 1123 TAACTTCAGAAATCAGTAATGCAATTAACCAATGACAGTAGTCGTACGACCTTCTTCATCGT 1064
QY 360 TAACCGTATCACTGGACTCTGATCGATATCAACGGTAAGACCAAAATCTGTATTTTCGA 419
DB 1063 TAGGCATACACTTAAATAGATTGATTTCTACAGGTCGTCAATTACACTACACTTTCAA 1004
QY 420 ATACAACATCCGTGAGACATCTCTGAATACATCAATCCGTCGTTCTCGTTACCATCAC 479
DB 1003 GTTCAAAATACTTCGCTATAGCGTTTGTCTTAATACGTCCTCATGATTTCGTCAGTTTAC 944
QY 480 CAATTAACCTGAACAATGCTAAATCTACATCAA 512
DB 943 GACGATACACATGTTCTTCTGTCACACAA 911

RESULT 13
US-10-268-838-1/c
; Sequence 1, Application US/10268838
; GENERAL INFORMATION:
; APPLICANT: KOREA KUMHO PETROCHEMICAL CO., LTD
; TITLE OF INVENTION: TRANSGENIC ZOYSIAGRASS WITH REDUCED SHADE AVOIDANCE
; FILE REFERENCE: 1942/52
; CURRENT APPLICATION NUMBER: US/10/268,838
; CURRENT FILING DATE: 2002-10-11
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 3390
; TYPE: DNA
; ORGANISM: Avena sp.
; US-10-268-838-1

Query Match      2.3%; Score 30.2; DB 6; Length 3390;
Best Local Similarity 52.8%; Pred. No. 16;
Matches 65; Conservative 0; Mismatches 58; Indels 0; Gaps 0;

QY 294 CCACAATGAATPACCATCATCACTCACTGATGAAGAATAAATCTGTTGGAAGATCTCCAT 353
DB 2194 CAACAAGCACACTCCACAAATGATGATCAATGATGAAGTCCGACTGGCACAAGCATTCACAA 2135
QY 354 CCGGGTAAACGTTATCATCTGGACTCTGATCGATATCAACGGTAAGACCAATCTGTATT 413
DB 2134 CCAAGATAACTGGACCATCATCTCCCTCTCGGGCCATGAGTCTTACCTCAATCGAATTT 2075
QY 414 CTT 416
DB 2074 CCT 2072

RESULT 14
US-10-240-454-20/c
; Sequence 20, Application US/10240454
; GENERAL INFORMATION:
; APPLICANT: OLEK, Alexander
```

```
; APPLICANT: PIEPENBROCK, Christian
; APPLICANT: BERLIN, Kurt
; TITLE OF INVENTION: Diagnosis of Diseases Associated with Metabolism
; FILE REFERENCE: 5013.1010
; CURRENT APPLICATION NUMBER: US/10/240,454
; CURRENT FILING DATE: 2002-10-02
; PRIOR APPLICATION NUMBER: PCT/EP01/04016
; PRIOR FILING DATE: 2001-04-06
; PRIOR APPLICATION NUMBER: DE 10019058.8
; PRIOR FILING DATE: 2000-04-06
; PRIOR APPLICATION NUMBER: DE 10019173.8
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: DE 10032529.7
; PRIOR FILING DATE: 2000-06-30
; PRIOR APPLICATION NUMBER: DE 10043826.1
; PRIOR FILING DATE: 2000-09-01
; NUMBER OF SEQ ID NOS: 68
; SEQ ID NO 20
; LENGTH: 6219
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
; US-10-240-454-20

Query Match      2.2%; Score 30; DB 6; Length 6219;
Best Local Similarity 47.4%; Pred. No. 23;
Matches 90; Conservative 0; Mismatches 100; Indels 0; Gaps 0;

QY 146 ACCAGTTCAAACGTGACCTCTTCGCTPACTTAAGATCCGTTTACTCAGAAATCAGAACA 205
DB 3709 ACAACITTAATCTCTCTTTACTCATATAAAAACTCTTACATAATAATAATAAAACT 3650
QY 206 TCATCTTCAACTCCGTTATTCCTGGACTTCTCTGTTCCCTTCGTTGCGATCCCGAAT 265
DB 3649 AAATATTACACTTATTTTCTCTCTAATTTTACTACTATAAAAACTTATTTAAATAATA 3590
QY 266 ACAAGACGACGGTATCCAGATTACATCCAAATGATGATCAACCATCATCACTCATGA 325
DB 3589 ACAATACTACTATTCTCTTAACACTACCACCTAAATATATTAAAAAACTTCTCAAAA 3530
QY 326 AGATAAACTC 335
DB 3529 AAAAAACAC 3520

RESULT 15
PCT-US02-12342-2
; Sequence 2, Application PC/TUS0212342
; GENERAL INFORMATION:
; APPLICANT: Chu, Peter
; APPLICANT: Jiang, Yingping
; APPLICANT: Li, Congfen
; APPLICANT: Liao, X. Charlene
; APPLICANT: Masuda, Esteban
; APPLICANT: Pardo, Jorge
; APPLICANT: Spencer, Colin
; APPLICANT: Zhao, Haoran
; APPLICANT: Rigel Pharmaceuticals, Inc.
; TITLE OF INVENTION: EDG: Modulators of Lymphocyte Activation and Migration
; FILE REFERENCE: 021044-000310PC
; CURRENT APPLICATION NUMBER: PCT/US02/12342
; CURRENT FILING DATE: 2002-08-26
; PRIOR APPLICATION NUMBER: US 60/284,763
; PRIOR FILING DATE: 2001-04-18
; PRIOR APPLICATION NUMBER: US 09/971,228
; PRIOR FILING DATE: 2001-10-03
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 1032
; TYPE: DNA
; ORGANISM: Homo sapiens
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FEATURE:
OTHER INFORMATION: mutant #1, C-terminally truncated variant of
OTHER INFORMATION: human endothelial differentiation G-protein
OTHER INFORMATION: coupled receptor (GPCR) 1 (EDG1)

FEATURE:

NAME/KEY: CDS

LOCATION: (9)..(1031)

OTHER INFORMATION: mutant #1 human EDG1

PCT-US02-12342-2

Query Match 2.2%; Score 29.8; DB 1; Length 1032;
Best Local Similarity 46.4%; Pred. No. 13;
Matches 97; Conservative 0; Mismatches 112; Indels 0; Gaps 0;

QY	315	CAACTGCTGAGAACTCTGGTTGGAGATCCCATCCGCGGTACCGTATCATCTG	374
DB	62	CTACGTCRACTATGATATCATCTCGCGGATTTACAACCTACAGGGAAGCTGAATACAG	121
QY	375	GACTCTGATCGATATCAACGGTAAGACCAAAATCTGTATTCTTTCGAATACAAACATCCGTGA	434
DB	122	CGGGGACAGGAGAACAGCATTAAACTGACCTCGGTGGTTCATTCTCATCTGCTGCTT	181
QY	435	AGACATCTCTGAATACATCAATCGTGGTTCTTCGTTACCATCACCATACCTGAACAA	494
DB	182	TATCATCTCGGAGACATCTTTGTTGCTGACCATTTGGAAACCAAGAAATTCACCG	241
QY	495	TGCTAAATCTACATCAACGGTAAACTGG	523
DB	242	ACCATGTACTATTTTATTGGCAATCTGG	270

Search completed: November 1, 2002, 08:17:49
Job time: 151 secs

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OM protein - protein search, using sw model

Run on: November 1, 2002, 07:18:23 ; Search time 26 seconds
(without alignments)
497.926 Million cell updates/sec

Title: US-09-910-186A-8
Perfect score: 2350
Sequence: 1 MANKYSEILNLIILNRYK.....YNKLGNQWQIPKDEGWTG 440

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep.*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep.*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep.*
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5: /cgn2_6/ptodata/1/iaa/PCRUS_COMB.pep.*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	1667	70.9	1169	4	US-09-255-829-20
2	831.5	35.4	438	1	US-08-480-604A-23
3	831.5	35.4	438	2	US-08-480-604A-23
4	831.5	35.4	438	4	US-08-915-136-23
5	831.5	35.4	462	1	US-08-480-604A-26
6	831.5	35.4	462	2	US-08-480-604A-26
7	831.5	35.4	462	4	US-08-915-136-26
8	831.5	35.4	1296	1	US-08-480-604A-28
9	831.5	35.4	1296	2	US-08-480-604A-28
10	831.5	35.4	1296	4	US-08-915-136-28
11	595	25.3	452	1	US-07-618-312A-2
12	595	25.3	452	1	US-08-280-228-2
13	594	25.3	452	1	US-07-618-312A-4
14	594	25.3	452	1	US-08-280-228-4
15	594	25.3	618	1	US-08-668-381A-5
16	594	25.3	853	4	US-08-913-880C-17
17	594	25.3	858	4	US-08-913-880C-16
18	594	25.3	860	4	US-08-913-880C-15
19	594	25.3	862	4	US-08-913-880C-14
20	594	25.3	865	4	US-08-913-880C-13
21	594	25.3	866	4	US-08-913-880C-12
22	594	25.3	874	4	US-08-913-880C-11
23	594	25.3	875	4	US-08-913-880C-10
24	594	25.3	1315	4	US-08-913-880C-1
25	575	24.5	452	1	US-08-110-786A-8
26	169.5	7.2	140	4	US-08-448-114A-22
27	163	6.9	2391	2	US-08-448-855A-2

28	163	6.9	2391	4	US-09-150-741-2	Sequence 2, Appl
29	137.5	5.9	476	4	US-09-316-083-3	Sequence 3, Appl
30	126	5.4	1435	2	US-08-568-459A-4	Sequence 4, Appl
31	126	5.4	1435	2	US-08-487-826B-4	Sequence 4, Appl
32	126	5.4	1435	4	US-09-210-288-4	Sequence 4, Appl
33	124.5	5.3	493	4	US-08-686-968C-4	Sequence 4, Appl
34	124	5.3	878	4	US-09-134-001C-4378	Sequence 4378, Ap
35	123.5	5.3	2366	1	US-08-480-604A-10	Sequence 10, Appl
36	123.5	5.3	2366	2	US-08-405-496A-10	Sequence 10, Appl
37	123.5	5.3	2366	4	US-08-915-136-10	Sequence 10, Appl
38	123.5	5.3	2366	4	US-08-957-310-10	Sequence 10, Appl
39	123.5	5.3	3135	1	US-08-323-170B-2	Sequence 2, Appl
40	123.5	5.3	3135	4	US-08-954-441-2	Sequence 2, Appl
41	120	5.1	2710	1	US-08-480-604A-6	Sequence 6, Appl
42	120	5.1	2710	2	US-08-405-496A-6	Sequence 6, Appl
43	120	5.1	2710	4	US-08-915-136-6	Sequence 6, Appl
44	120	5.1	2710	4	US-08-957-310-6	Sequence 6, Appl
45	118.5	5.0	990	2	US-08-392-625-20	Sequence 20, Appl

ALIGNMENTS

RESULT 1
US-09-255-829-20
; Sequence 20, Application US/09255829
; Patent No. 6461617
; GENERAL INFORMATION:
; APPLICANT: Shone, Clifford Charles
; APPLICANT: Quinn, Conrad Padraig
; APPLICANT: Foster, Keith Alan
; TITLE OF INVENTION: Recombinant Toxin Fragments
; NUMBER OF SEQUENCES: 29
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: STERN, KESSLER, GOLDSTEIN, & FOX P.L.L.C.
; STREET: 1100 NEW YORK AVENUE, NW, SUITE 600
; CITY: WASHINGTON
; STATE: DC
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/255,829
; FILING DATE: 23-FEB-1999
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/GB97/02273
; FILING DATE: 22-AUG-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/782,893
; FILING DATE: 27-DEC-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: ESMOND, ROBERT W.
; REGISTRATION NUMBER: 32,893
; REFERENCE/DOCKET NUMBER: 1581.0130002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-2600
; TELEFAX: 202-371-2540
; INFORMATION FOR SEQ ID NO: 20:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1169 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-255-829-20

Query Match 70.9%; Score 1667; DB 4; Length 1169;
Best Local Similarity 99.7%; Pred. No. 1.7e-121;
Matches 317; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MANYKSEILNIIILRLRYKDNLDLSYGAKEVYDGVDELNDKNOFKUTSSANSKIRV 60
Db 852 MFYKSEILNIIILRLRYKDNLDLSYGAKEVYDGVDELNDKNOFKUTSSANSKIRV 911
QY 61 TQONIIIFNSVDFSVFPIRKYKNDGIONTHNEYTIINCKMKNNGKWKISIRGNRI 120
Db 912 TQONIIIFNSVDFSVFPIRKYKNDGIONTHNEYTIINCKMKNNGKWKISIRGNRI 971
QY 121 IWLIDINGKTSVPEYINRDISEYINRPFVTTNNLANAKIYINGKLESNTDIKI 180
Db 972 IWLIDINGKTSVPEYINRDISEYINRPFVTTNNLANAKIYINGKLESNTDIKI 1031
QY 181 REVIANGEIIFKLDGIDRTQFIWKYFSIENTELSQSNIEERYKIOSYSEYKLDGFWGNP 240
Db 1032 REVIANGEIIFKLDGIDRTQFIWKYFSIENTELSQSNIEERYKIOSYSEYKLDGFWGNP 1091
QY 241 LMYNKEYYMFNAGNKNYSIKLKDPVGEILTRSKYNQNSKIYINRDLYIGERPIARRKS 300
Db 1092 LMYNKEYYMFNAGNKNYSIKLKDPVGEILTRSKYNQNSKIYINRDLYIGERPIARRKS 1151
QY 301 NSQSIINDIVRKEDYIYL 318
Db 1152 NSQSIINDIVRKEDYIYL 1169

RESULT 2

US-08-480-604A-23
; Sequence 23, Application US/08480604A
; Patent No. 5736139
; GENERAL INFORMATION:
; APPLICANT: KINK, JOHN A.
; APPLICANT: THALLEY, BRUCE S.
; APPLICANT: PADHYE, NISHA V.
; APPLICANT: FINCA, JOSEPH R.
; APPLICANT: STAFFORD, DOUGLAS C.
; TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
; PREVENTION OF C. DIFFICILE DISEASE
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: UNITED STATES OF AMERICA
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION NUMBER: US/08/480.604A
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; FILING DATE: 14-APR-1995
; APPLICATION NUMBER: US 08/422,711
; PRIOR APPLICATION DATA:
; FILING DATE: 16-MAR-1995
; APPLICATION NUMBER: US 08/405,496
; PRIOR APPLICATION DATA:
; FILING DATE: 25-OCT-1994
; APPLICATION NUMBER: US 08/329,154
; PRIOR APPLICATION DATA:
; FILING DATE: 02-DEC-1993
; APPLICATION NUMBER: US 07/985,321
; PRIOR APPLICATION DATA:
; FILING DATE: 04-DEC-1992
; APPLICATION NUMBER: US 07/429,791
; PRIOR APPLICATION DATA:
; FILING DATE: 31-OCT-1989
; ATTORNEY/AGENT INFORMATION:

NAME: INGOLIA, DIANE E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPHD-01763
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 23:
SEQUENCE CHARACTERISTICS:
LENGTH: 438 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-480-604A-23
Query Match 35.4%; Score 831.5; DB 1; Length 438;
Best Local Similarity 40.0%; Pred. No. 4.7e-57;
Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;
QY 4 KYNSEILNIIILRLRYKDNLDLSYGAKEVYDGVDELNDKNOFKUTSSANSKIRV 61
Db 10 EYKNIINTSILRLYESNHLIDLSYASKINIGSKVNFDPIDKNQIOLFNELESSKIEVI 69
QY 62 QNQNIIENSVELDFSVFPIRKYKNDGIONTHNEYTIINCKMKNNGKWKISIRGNRI 121
Db 70 LKNAIVYNSMTEPFSTFWIRIPKYEY---SISLANEYTIINCKMKNNGKWKISIRGNRI 126
QY 122 WTLIDINGKTSVPEYINRDISEYINRPFVTTNNLANAKIYINGKLESNTDIKI 180
Db 127 WTLIDINGKTSVPEYINRDISEYINRPFVTTNNLANAKIYINGKLESNTDIKI 186
QY 181 REVIANGEIIFKLDGIDRTQFIWKYFSIENTELSQSNIEERYKIOSYSEYKLDGFWGNP 240
Db 187 GNHASNNIMFKLDGIDRTQFIWKYFSIENTELSQSNIEERYKIOSYSEYKLDGFWGNP 246
QY 241 LMYNKEYYMFNAGNKNYSIKLKDPVGEILTRSKYNQNSKIYINRDLYIGERPIARRKS 300
Db 247 LQYDKPYMLNLYDPNKKYDVNNVNGVIRGYMLKGPGRSVMTNIIYLNSS-----LYRG 299
QY 292 EKFTIRKSNQSINDIVRKEDYIYLDFNLSQSNIEERYKIOSYSEYKLDGFWGNP 351
Db 300 TKFIKKYASGN--KNIVNNDRVYINVVVKNRYLATRASQAGVEKILSALEIPDVG 357
QY 352 ELYNTIOIKYDEQP--TYSQQLLFKDEESTDEIGLIHFRYFSGSIVFEYKDYFCISK 410
Db 358 NLSQVYVYKSKNDQGITNCKM--NLQDNNGNDIGFIGHOFNNIA-----KLVASN 407
QY 411 WYKVKRKYPNLKGNCWQFIPKDEGTE 440
Db 408 WYKVKRKYPNLKGNCWQFIPKDEGTE 435

RESULT 3

US-08-405-496A-23
; Sequence 23, Application US/08405496A
; Patent No. 5919665
; GENERAL INFORMATION:
; APPLICANT: WILLIAMS, JAMES A.
; TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
; TITLE OF INVENTION: NEUROTOXIN
; NUMBER OF SEQUENCES: 30
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:

APPLICATION NUMBER: US 08/405,496A
 FILING DATE: 16-MAR-1995
 CLASSIFICATION: 424
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/329,154
 FILING DATE: 25-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/161,907
 FILING DATE: 02-DEC-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLIA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPHD-01308
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 23:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 438 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-405-496A-23

Query Match 35.4%; Score 831.5; DB 2; Length 438;
 Best Local Similarity 40.0%; Pred. No. 4.7e-57;
 Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

QY 4 KYNSEILNIIILRYDNDLIDLSGKAVEYDGVELN--DKNQFKLTSSANSKIRVT 61
 DB 10 EYKNIINTSLNRYESNHLIDLSRYASKINSGKVNFDIDKNOIQLFNLESSKIEVI 69
 QY 62 QNQNIIIFNSVFLDSFVSFWIRPKYKNDGQNTIHNRYTIINCMKNNSGKISIRGNRII 121
 DB 70 LKNAIVNSMYENFSTFWIRPKYFN--SISLNNEYTIINCMNNSGKVSINYEII 126
 QY 122 WTLIDNGKTSVFEVNIREDISEYINRFFVTITNN--LNNAKIYINGKLESNTDIKI 180
 DB 127 WTLQDTQBIKQVVFYKISQMINISDYINRWIFVTITNNLNNSKIYINGRLIDQKPISNL 186
 QY 181 REVANGELIIFKLDGIDRTQFIWVKYFSIFNTELSQSNIEERYKIQSYSEYIKDFWGNP 240
 DB 187 GNHASNIMFKLDCRTHRYIWIKYFNFLDKELNEKEIKLDYDNQNSGILKDFWGDY 246
 QY 241 LMNYKEIYFWAGKNSYIKLKK-----DSPVGEILTRSKYQNSKIYINRDLIYG 291
 DB 247 LQYDKPYMLNLYDPNKYVDVNNVGIKGYMYLKGPRGSVMITNIYLNSS-----LYRG 299
 QY 292 EKFIIRKSSQSNDDITVREDYIYDFDNLNQEMRVYTYKYFKKEEKLFLAPISDS 351
 DB 300 TKFIKKYASGN--KDNIVRNDRVYINVVVKNKEYELATNASQAGVEKLTSALEIPDVG 357
 QY 352 ELYNTIQIKEYDEOP--TVSCQLLKFKDEESTDEIGLGIHRYFESGIVFEYKDYFCISK 410
 DB 358 NLSQVVMVKSKNDQGITNKCKN--NLQDNNGNDIGTIGFHQFNIA-----KLVASN 407
 QY 411 WYLVKVKRPYKLNKGCNQWQIPKDEGWTE 440
 DB 408 WYNQIERS--SRLGCSWEFIPVDDGNGE 435

RESULT 4
 US-08-915-136-23
 ; Sequence 23, Application US/08915136
 ; Patent No. 6290360
 ; GENERAL INFORMATION:
 ; APPLICANT: KINK, JOHN A.

APPLICANT: THALLEY, BRUCE S.
 APPLICANT: PADHYE, NISHA V.
 APPLICANT: FIRCA, JOSEPH R.
 APPLICANT: STAFFORD, DOUGLAS C.
 TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
 PREVENTION OF C. DIFFICILE DISEASE
 NUMBER OF SEQUENCES: 32
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: MEDLEN & CARROLL, LLP
 STREET: 220 MONTGOMERY STREET, SUITE 2200
 CITY: SAN FRANCISCO
 STATE: CALIFORNIA
 COUNTRY: UNITED STATES OF AMERICA
 ZIP: 94104
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US 08/915,136
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/480,604
 FILING DATE:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/405,496
 FILING DATE: 16-MAR-1995
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/329,154
 FILING DATE: 25-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/161,907
 FILING DATE: 02-DEC-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLIA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPHD-01763
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 23:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 438 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-915-136-23

Query Match 35.4%; Score 831.5; DB 4; Length 438;
 Best Local Similarity 40.0%; Pred. No. 4.7e-57;
 Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

QY 4 KYNSEILNIIILRYDNDLIDLSGKAVEYDGVELN--DKNQFKLTSSANSKIRVT 61
 DB 10 EYKNIINTSLNRYESNHLIDLSRYASKINSGKVNFDIDKNOIQLFNLESSKIEVI 69
 QY 62 QNQNIIIFNSVFLDSFVSFWIRPKYKNDGQNTIHNRYTIINCMKNNSGKISIRGNRII 121
 DB 70 LKNAIVNSMYENFSTFWIRPKYFN--SISLNNEYTIINCMNNSGKVSINYEII 126
 QY 122 WTLIDNGKTSVFEVNIREDISEYINRFFVTITNN--LNNAKIYINGKLESNTDIKI 180
 DB 127 WTLQDTQBIKQVVFYKISQMINISDYINRWIFVTITNNLNNSKIYINGRLIDQKPISNL 186
 QY 181 REVANGELIIFKLDGIDRTQFIWVKYFSIFNTELSQSNIEERYKIQSYSEYIKDFWGNP 240

Db 187 GNTHASNNIMFKLDGGRDTHRYIWKIFNLFKELNEKEIKDLYNQNSGILKDFWGDY 246
QY 241 LMYNKEYYMFNAGNKNYSIKLKK-----DSPVGEILTRSKYNQNSKYNIRYDIYG 291
Db 247 LOYDKPYMLNDYPNKYVDVNVGIRGYWMLKGRGVSMTTNIYLNSS-----LYRG 299
QY 292 EKFIIRKNSQINDIVRKEDYIYLDFFNLQEWRYTYKYFKKEEKLFLAPISDS 351
Db 300 TKFIIRKYASGN--KDNIVNDRVYINVVNKKRYLATNASQAGVEKILSALEIPDVG 357
QY 352 ELVNTIQIKEYDEQP--TYSQCLLFKKDEBSTEIGLIGIHRFYESGIVFEYKDYFCISK 410
Db 356 NLSQVVMKSKNDGQITNCKM--NLQDNGNDIGFIPHQFNNTIA-----KLVASN 407
QY 411 WYLKEVRKPYNLKLCGNWQIFPKDEGWT 440
Db 408 WYNRQIERS--SRTLGCSWEFIPVDDGWGE 435

RESULT 5
US-08-480-604A-26
; Sequence 26, Application US/08480604A
; Patent No. 5736139
; GENERAL INFORMATION:
; APPLICANT: KINK, JOHN A.
; APPLICANT: THALLEY, BRUCE S.
; APPLICANT: PADHYE, NISHA V.
; APPLICANT: FIRCA, JOSEPH R.
; APPLICANT: STAFFORD, DOUGLAS C.
; TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
; PREVENTION OF C. DIFFICILE DISEASE
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: UNITED STATES OF AMERICA
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/480,604A
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/422,711
; FILING DATE: 14-APR-1995
; PRIOR APPLICATION DATA: US 08/405,496
; FILING DATE: 16-MAR-1995
; PRIOR APPLICATION DATA: US 08/329,154
; FILING DATE: 25-OCT-1994
; PRIOR APPLICATION DATA: US 08/161,907
; FILING DATE: 02-DEC-1993
; PRIOR APPLICATION DATA: US 07/985,321
; FILING DATE: 04-DEC-1992
; PRIOR APPLICATION DATA: US 07/429,791
; FILING DATE: 31-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: INGOLIA, DIANE E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPHD-01763
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410

TELEFAX: (415) 397-8338
; INFORMATION FOR SEQ ID NO: 26:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 462 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-480-604A-26

Query Match 35.4%; Score 831.5; DB 1; Length 462;
Best Local Similarity 40.0%; Pred No. 5e-57;
Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

QY 4 KYNSEILNIIILRYKDNLLDLSYGAKVEYDGVELN--DKNQFKLTSSANSKIRVT 61
Db 34 EYIKNIINTSILNRYESNHLIDLSRYASKINIGSKVNFDPIDKNQIQLFLESKIEVI 93
QY 62 QNQTIIIFNSVFLDFSVFWIRIPKYKNDGIQNYIHNEYTIINCMMKNSGKISIRGNRII 121
Db 94 LKNAIVINSWYENFSTFWIRIPKYN---SISLNNEYTIINCMMNSGKVSLSNYGEII 150
QY 122 WTLIDINGTKTSVFFEYNIREDISEYINRWFVTITNN--LNNAKIYIINGKLESNFDIKDI 180
Db 151 WTLQDTQEIQRVVRVYKYSQMINISDYINRWIEFTITNNLNNSKIYINGRLIDQKPISNL 210
QY 181 REVIANGEIIFKLDGIDRTOFTWKKYPSIENTELSSNIBERYKIQSYSEYKDFWGNP 240
Db 211 GNTHASNNIMFKLDGGRDTHRYIWKIFNLFKELNEKEIKDLYNQNSGILKDFWGDY 270
QY 241 LMYNKEYYMFNAGNKNYSIKLKK-----DSPVGEILTRSKYNQNSKYNIRYDIYG 291
Db 271 LOYDKPYMLNDYPNKYVDVNVGIRGYWMLKGRGVSMTTNIYLNSS-----LYRG 323
QY 292 EKFIIRKNSQINDIVRKEDYIYLDFFNLQEWRYTYKYFKKEEKLFLAPISDS 351
Db 324 TKFIIRKYASGN--KDNIVNDRVYINVVNKKRYLATNASQAGVEKILSALEIPDVG 381
QY 352 ELVNTIQIKEYDEQP--TYSQCLLFKKDEBSTEIGLIGIHRFYESGIVFEYKDYFCISK 410
Db 382 NLSQVVMKSKNDGQITNCKM--NLQDNGNDIGFIPHQFNNTIA-----KLVASN 431
QY 411 WYLKEVRKPYNLKLCGNWQIFPKDEGWT 440
Db 432 WYNRQIERS--SRTLGCSWEFIPVDDGWGE 459

RESULT 6
US-08-405-496A-26
; Sequence 26, Application US/08405496A
; Patent No. 5919665
; GENERAL INFORMATION:
; APPLICANT: WILLIAMS, JAMES A.
; TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
; TITLE OF INVENTION: NEUROTOXIN
; NUMBER OF SEQUENCES: 30
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/405,496A
; FILING DATE: 16-MAR-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/329,154

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/ FILING DATE: 25-OCT-1994
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/161,907
/ FILING DATE: 02-DEC-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/985,321
/ FILING DATE: 04-DEC-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/429,791
/ FILING DATE: 31-OCT-1989
/ ATTORNEY/AGENT INFORMATION:
/ NAME: INGOLIA, DIANE E.
/ REGISTRATION NUMBER: 40,027
/ REFERENCE/DOCKET NUMBER: OPD-01308
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 705-8410
/ TELEFAX: (415) 397-8338
/ INFORMATION FOR SEQ ID NO: 26:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 462 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
US-08-405-496A-26

Query Match 35.4%; Score 831.5; DB 2; Length 462;
Best Local Similarity 40.0%; Pred. No. 5e-57;
Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

Qy 4 KYNSEILNLIILRYKDNLDLSYGAKVEYDGVLELN--DKNQFKLTSSANSKIRVT 61
Db 34 EYKNIITSLNLRYESNHLIDLSYASKINIGSKVNFDPDKNQIQLFNLESSKIEVI 93
Qy 62 QNQNIIIFNSVFLDFSVFWIRIPKYKNDGIONVHNEYTIINCMMNNSGWKISIRGNRII 121
Db 94 LKNAIVNYSMYENFSTFWIRIPKYN--SISLNNEYTIINCMMNNSGWKISIRGNRII 150
Qy 122 WTLDDINGKTYSFEFFYENIREDSKINRFFVTIINN--LNNAKIYINGKLESNTDIKI 180
Db 151 WTLDDTOEIKQVVFVKYSQMINISDIYNRWFVTIINNRLNNSKIYINGRLDQKPSNL 210
Qy 181 REVIANGEIIFKLDGIDRTQFTWIKYFSTFNTLSQSNTEERYKIQSYSEYKDFWGNP 240
Db 211 GNIHASNIMFKLDGCRDTHRYIWKYFNLFDELKEKEIKDLYDNQSNIGILKDFWGDY 270
Qy 241 LMYNKVEYMFNAGNKNYSYIKLKK-----DSPYGEILTRSKYNQNSKIYINRDLYIG 291
Db 271 LQYDKPYMLNLDPNKYVDNVNNGVINGMYLKGPRGSVMTTNIYLNSS-----LYRG 323
Qy 292 EKFTIRKNSQSINDIDVRKEDYIYLDFFNLNQEWRVYTYKFKKEEKLFLAPISDS 351
Db 324 TKFTIKRYASGN--KDNIVRNDRVYINVVYKNEKYLATNASQAGVEKILSALEIPDVG 381
Qy 352 ELYNTIOIKEYDEOP--TYSOLLFKKDEESTDEIGLIGIHRFYESGIVPEEYKDYFCISK 410
Db 382 NLSQVVMKSKNDGQITNCKM--NLQDNNGNDIGTGFHGFNNIA-----KLIVASN 431
Qy 411 WYLKEVRKPYNLKGCNWOQFIPKDEGWE 440
Db 432 WYNRQIERS--SRTLGCSEFIPVDGWE 459

RESULT 7
US-08-915-136-26
; Sequence 26, Application US/08915136
; Patent No. 6290960
; GENERAL INFORMATION:
; APPLICANT: KINK, JOHN A.
; APPLICANT: THALLEY, BRUCE S.
; APPLICANT: PADHYE, NISHA V.
; APPLICANT: FIRCA, JOSEPH R.
; APPLICANT: STAFFORD, DOUGLAS C.
; TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND

```

```

/ TITLE OF INVENTION: PREVENTION OF C. DIFFICILE DISEASE
/ NUMBER OF SEQUENCES: 32
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: MEDLEN & CARROLL, LLP
/ STREET: 220 MONTGOMERY STREET, SUITE 2200
/ CITY: SAN FRANCISCO
/ STATE: CALIFORNIA
/ COUNTRY: UNITED STATES OF AMERICA
/ ZIP: 94104
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: PatentIn Release #1.0, Version #1.30
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/915,136
/ FILING DATE:
/ CLASSIFICATION:
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 08/480,604
/ FILING DATE:
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/405,496
/ FILING DATE: 16-MAR-1995
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/329,154
/ FILING DATE: 25-OCT-1994
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/161,907
/ FILING DATE: 02-DEC-1993
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/985,321
/ FILING DATE: 04-DEC-1992
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 07/429,791
/ FILING DATE: 31-OCT-1989
/ ATTORNEY/AGENT INFORMATION:
/ NAME: INGOLIA, DIANE E.
/ REGISTRATION NUMBER: 40,027
/ REFERENCE/DOCKET NUMBER: OPD-01763
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: (415) 705-8410
/ TELEFAX: (415) 397-8338
/ INFORMATION FOR SEQ ID NO: 26:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 462 amino acids
/ TYPE: amino acid
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
US-08-915-136-26

Query Match 35.4%; Score 831.5; DB 4; Length 462;
Best Local Similarity 40.0%; Pred. No. 5e-57;
Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

Qy 4 KYNSEILNLIILRYKDNLDLSYGAKVEYDGVLELN--DKNQFKLTSSANSKIRVT 61
Db 34 EYKNIITSLNLRYESNHLIDLSYASKINIGSKVNFDPDKNQIQLFNLESSKIEVI 93
Qy 62 QNQNIIIFNSVFLDFSVFWIRIPKYKNDGIONVHNEYTIINCMMNNSGWKISIRGNRII 121
Db 94 LKNAIVNYSMYENFSTFWIRIPKYN--SISLNNEYTIINCMMNNSGWKISIRGNRII 150
Qy 122 WTLDDINGKTYSFEFFYENIREDSKINRFFVTIINN--LNNAKIYINGKLESNTDIKI 180
Db 151 WTLDDTOEIKQVVFVKYSQMINISDIYNRWFVTIINNRLNNSKIYINGRLDQKPSNL 210
Qy 181 REVIANGEIIFKLDGIDRTQFTWIKYFSTFNTLSQSNTEERYKIQSYSEYKDFWGNP 240
Db 211 GNIHASNIMFKLDGCRDTHRYIWKYFNLFDELKEKEIKDLYDNQSNIGILKDFWGDY 270
Qy 241 LMYNKVEYMFNAGNKNYSYIKLKK-----DSPYGEILTRSKYNQNSKIYINRDLYIG 291

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Db 271 LOYDKPYMLNLYDPKNKYVDVNNVGIKGYMYLKGPRGSMVTNIIYLNSS-----LYRG 323
QY 292 EKPIIRKSNSSINDDIVRKEDYIYLDFFNINQEWRYVYTKYFKKEEKLFLAPISDSD 351
Db 324 TKFIIRKYSAGN--KDNIVRNDRYIINVVYKKNRYLATNASQAGVEKILSALEIPDVG 381
QY 352 ELYNTIQIKEYDEQP--TYSCLLFKKDESDDEIGLIGHRFYSGIVFEYKDYFCISK 410
Db 382 NLSQVVMKSKNDQGITNCKM--NLQDNGNDIGFIGHFQFNIA-----KLVASN 431
QY 411 WYLKVKRKPYNLKLGNWQFIPKDEGTE 440
Db 432 WYNQIERS--SRTLGSWEFIPVDDGWE 459

RESULT 8
US-08-480-604A-28
; Sequence 28, Application US/08480604A
; Patent No. 5736139
; GENERAL INFORMATION:
; APPLICANT: KINK, JOHN A.
; APPLICANT: THALLEY, BRUCE S.
; APPLICANT: PADHYE, NISHA V.
; APPLICANT: FIRCA, JOSEPH R.
; APPLICANT: STAFFORD, DOUGLAS C.
; TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND
; PREVENTION OF C. DIFFICILE DISEASE
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: UNITED STATES OF AMERICA
; ZIP: 94104

COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/480,604A
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/422,711
; FILING DATE: 14-APR-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/405,496
; FILING DATE: 16-MAR-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/329,154
; FILING DATE: 25-OCT-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,907
; FILING DATE: 02-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/985,321
; FILING DATE: 04-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/429,791
; FILING DATE: 31-OCT-1989
; ATTORNEY/AGENT INFORMATION:
; NAME: INGOLIA, DIANE E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPND-01763
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410
; TELEFAX: (415) 397-8338
; INFORMATION FOR SEQ ID NO: 28:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1296 amino acids
; TYPE: amino acid

; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-480-604A-28
Query Match 35.48; Score 831.5; DB 1; Length 1296;
Best Local Similarity 40.08; Pred. No. 1.9e-56;
Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;
QY 4 KNSSELNIIILNRYKKNLIDLSGYGAKVEYVDGVELN--DRNFKLTSSANSKIRVT 61
Db 868 EYKNIINTSILNRYESHLIDLRSYASKINIGSKVNFDPIDKNQIQLFNLESSKIEVI 927
QY 62 QNQNIFISVFLDFSVFWRIPKPKNDGIONYIHNEVTIINCMMKNSGKISIRGNRII 121
Db 928 LKNAIVNSMYENFTFWIRPKYFN---SISLNNEYTIINCMMNSGKVSILNYGEII 984
QY 122 WTLIDINGTKSVFEEYINREDISEYINRWFFVTITNN--LNNAKIYINGKLESNTDIKDI 180
Db 985 WTLQDQETIKQVRFKYSOMINISDYINRWIFVTITNNLNSKIYINGRLIDQKPIISNL 1044
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFTELQSNIERYKIQSYSEYKDFWGNP 240
Db 1045 GNIHASNNIMFKLDGCRDTHRYIWIKYFNLFDELKEIKLDYDNOSNGILKDFWGDY 1104
QY 241 LMYNKYYMFENAGNENSYIKKK-----DSPVGEILTRSKYNSKYNINRYDLYIG 291
Db 1105 LQYDKPYMLNLYDPKNKYVDVNNVGIKGYMYLKGPRGSMVTNIIYLNSS-----LYRG 1157
QY 292 EKPIIRKSNSSINDDIVRKEDYIYLDFFNINQEWRYVYTKYFKKEEKLFLAPISDSD 351
Db 1158 TKFIIRKYSAGN--KDNIVRNDRYIINVVYKKNRYLATNASQAGVEKILSALEIPDVG 1215
QY 352 ELYNTIQIKEYDEQP--TYSCLLFKKDESDDEIGLIGHRFYSGIVFEYKDYFCISK 410
Db 1216 NLSQVVMKSKNDQGITNCKM--NLQDNGNDIGFIGHFQFNIA-----KLVASN 1265
QY 411 WYLKVKRKPYNLKLGNWQFIPKDEGTE 440
Db 1266 WYNQIERS--SRTLGSWEFIPVDDGWE 1293

RESULT 9
US-08-405-496A-28
; Sequence 28, Application US/08405496A
; Patent No. 5919665
; GENERAL INFORMATION:
; APPLICANT: WILLIAMS, JAMES A.
; TITLE OF INVENTION: VACCINE FOR CLOSTRIDIUM BOTULINUM
; TITLE OF INVENTION: NEUROTOXIN
; NUMBER OF SEQUENCES: 30
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: MEDLEN & CARROLL, LLP
; STREET: 220 MONTGOMERY STREET, SUITE 2200
; CITY: SAN FRANCISCO
; STATE: CALIFORNIA
; COUNTRY: USA
; ZIP: 94104
; COMPUTER READABLE FORM: disk
; MEDIUM TYPE: Floppy
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/405,496A
; FILING DATE: 16-MAR-1995
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/329,154
; FILING DATE: 25-OCT-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,907
; FILING DATE: 02-DEC-1993
; PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLIA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPD-01308
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 28:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1296 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-405-496A-28

Query Match 35.4%; Score 831.5; DB 2; Length 1296;
 Best Local Similarity 40.0%; Pred. No. 1.9e-56;
 Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

QY 4 KYNEILNIIILRAYKNNLIDLSGYGAKVEYDGVELN--DKNQFKLTSSANSKIRVT 61
 Db 868 EYKNIINTSILNRYESNHLIDLSRYASKINIGSKVNFDPIDKNQIOLFNLLESSKIEVI 927
 QY 62 QNQNIIENSVLDFSVFWIRIPKYKNDGIONYIHNEYTIINCNNKNSGKISIRGNRII 121
 Db 928 LKNAIYNSWYENFSTFWIRIPKYFN---SISLNNEYTIINCNNKNSGKISIRGNRII 984
 QY 122 WTLLIDNGTKSVFFFYNIREDISEYINRWFFVTITNN--LNNAKIYINGKLESNTDIKDI 180
 Db 985 WTLLDQTEIKQRVVEKYQSOMINISDYINRWFFVTITNN--LNNAKIYINGKLESNTDIKDI 1044
 QY 181 REVIANGEIIFKLDGIDRTQIWKYKSIINTELQSNTSEERKIOSYSEYKLDQWGNP 240
 Db 1045 GNTHASNNMFKLDGCDRTHRIWIKYFNFLFKELNEKEIKLDYDQNSGKILKDFWGY 1104
 QY 241 LMYNKYYMFMAGNKNYSIKLKK-----DSPVGEILTRSKYQNSKIYINRDLYIG 291
 Db 1105 LQYDKPYMLNLYDPNKYDVNVNNGVIRGYMYLKGPRGSMVTNIIYLNSS-----LYRG 1157
 QY 292 EKFIIRKNSOSINDDIVRKEDYIYLDFFNLQENWVYKYFKKEEKLFLAPISDS 351
 Db 1158 TKFIIRKNSOSINDDIVRKEDYIYLDFFNLQENWVYKYFKKEEKLFLAPISDS 1215
 QY 352 ELYNTIQIKEYDEQP-TYSCOLLFKKDEESTDEIGLIIHRYFYESGIVFEYKDYFCISK 410
 Db 1216 NLSQVYVMKSKNDQGITNCKRW--NLQDNGNDIGFIFGHQFNIA-----KLVASN 1265
 QY 411 WYLKVKRPYNKLGKCNWQIFPKDEGWTE 440
 Db 1266 WYNROIERS--SRTLGCSWEFIPVDDGWGE 1293

RESULT 10

US-08-915-136-28

Sequence 28, Application us/08915136

Patent No. 6290960

GENERAL INFORMATION:

APPLICANT: KINK, JOHN A.

APPLICANT: THALLEY, BRUCE S.

APPLICANT: PADHIE, NISHA V.

APPLICANT: FIRCA, JOSEPH R.

APPLICANT: STAFFORD, DOUGLAS C.

TITLE OF INVENTION: VACCINE AND ANTITOXIN FOR TREATMENT AND

PREVENTION OF C. DIFFICILE DISEASE

NUMBER OF SEQUENCES: 32

CORRESPONDENCE ADDRESS:

ADDRESSEE: MEDLEN & CARROLL, LLP

STREET: 220 MONTGOMERY STREET, SUITE 2200

CITY: SAN FRANCISCO
 STATE: CALIFORNIA
 COUNTRY: UNITED STATES OF AMERICA
 ZIP: 94104
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/915,136
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/480,604
 FILING DATE:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/405,496
 FILING DATE: 16-MAR-1995
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/329,154
 FILING DATE: 25-OCT-1994
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/161,907
 FILING DATE: 02-DEC-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,321
 FILING DATE: 04-DEC-1992
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 07/429,791
 FILING DATE: 31-OCT-1989
 ATTORNEY/AGENT INFORMATION:
 NAME: INGOLIA, DIANE E.
 REGISTRATION NUMBER: 40,027
 REFERENCE/DOCKET NUMBER: OPD-01763
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415) 705-8410
 TELEFAX: (415) 397-8338
 INFORMATION FOR SEQ ID NO: 28:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 1296 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-915-136-28

Query Match 35.4%; Score 831.5; DB 4; Length 1296;
 Best Local Similarity 40.0%; Pred. No. 1.9e-56;
 Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

QY 4 KYNEILNIIILRAYKNNLIDLSGYGAKVEYDGVELN--DKNQFKLTSSANSKIRVT 61
 Db 868 EYKNIINTSILNRYESNHLIDLSRYASKINIGSKVNFDPIDKNQIOLFNLLESSKIEVI 927
 QY 62 QNQNIIENSVLDFSVFWIRIPKYKNDGIONYIHNEYTIINCNNKNSGKISIRGNRII 121
 Db 928 LKNAIYNSWYENFSTFWIRIPKYFN---SISLNNEYTIINCNNKNSGKISIRGNRII 984
 QY 122 WTLLIDNGTKSVFFFYNIREDISEYINRWFFVTITNN--LNNAKIYINGKLESNTDIKDI 180
 Db 985 WTLLDQTEIKQRVVEKYQSOMINISDYINRWFFVTITNN--LNNAKIYINGKLESNTDIKDI 1044
 QY 181 REVIANGEIIFKLDGIDRTQIWKYKSIINTELQSNTSEERKIOSYSEYKLDQWGNP 240
 Db 1045 GNTHASNNMFKLDGCDRTHRIWIKYFNFLFKELNEKEIKLDYDQNSGKILKDFWGY 1104
 QY 241 LMYNKYYMFMAGNKNYSIKLKK-----DSPVGEILTRSKYQNSKIYINRDLYIG 291
 Db 1105 LQYDKPYMLNLYDPNKYDVNVNNGVIRGYMYLKGPRGSMVTNIIYLNSS-----LYRG 1157
 QY 292 EKFIIRKNSOSINDDIVRKEDYIYLDFFNLQENWVYKYFKKEEKLFLAPISDS 351
 Db 1158 TKFIIRKNSOSINDDIVRKEDYIYLDFFNLQENWVYKYFKKEEKLFLAPISDS 1215

QY 352 ELYNTIQIKEYDEQ-TYSCQLLFKKDESTEIGLIGHRFYSGIVFEYKYDFCISK 410
DB 1216 NLSQVVVMSKNDQGTNNCKM--NLQDNGNDIGFIGHQFNIA-----KLVASN 1365
QY 411 WYLKVKRPYNLKLGCNWFIPKDEGHT 440
DB 1266 WYNQRIERS--SRTLGCSWEFIPVDDGWGE 1293

RESULT 11

US-07-618-312A-2
; Sequence 2, Application US/07618312A
; Patent No. 5385540
; GENERAL INFORMATION:
; APPLICANT: Makoff Dr, Andrew J
; APPLICANT: Romanos Dr, Michael A
; APPLICANT: Clare Dr, Jeffrey J
; APPLICANT: Fairweather Dr, Neil F
; TITLE OF INVENTION: VACCINES
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: 14th Floor
; STREET: 2200 Clarendon Boulevard,
; CITY: Arlington,
; STATE: Virginia
; COUNTRY: U.S.A.
; ZIP: 22201

; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/618,312A
; FILING DATE: 19910516
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 8926832.0
; FILING DATE: 28-NOV-1989
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9006097.1
; FILING DATE: 17-MAR-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Crawford Mr, Arthur R
; REGISTRATION NUMBER: 25,327
; REFERENCE/DOCKET NUMBER: 510-51
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 0101 703 8750400
; TELEFAX: 0101 703 5253468
; TELEX: 200797 NIXN UR
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 452 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; MOLECULE TYPE: protein

US-07-618-312A-2

Query Match 25.3%; Score 595; DB 1; Length 452;

Best Local Similarity 32.2%; Pred. No. 1.2e-38;

Matches 142; Conservative 88; Mismatches 183; Indels 28; Gaps 12;

QY 14 ILNLYKNNLIDLSGYCAKVEYDGVEL---NDKNQFKLTSSANKIWTQONNIEN 69
DB 23 ILNLDINNDINIDISGFNSVITPDQALVFGINGK-AIHLVNESSESVVHKMDIEN 81
QY 70 SYFLDFSVFWIRPKYKNDQIONIHNEYTIINCNN-----SGWKISIRGNRIWTL 124
DB 82 DMENFTVSFWLRVPKVSASHLEQYGTNEYSIISMKKHSLSIGSGWSVLKGNLIWTL 141
QY 125 IDNGKTSVFEYNIREDISEYI-NRWFVFTIINN-LNNAKIYINGKLESNTDKDIRE 182

DB 142 KDSAGEVQIUTFR-DLPDKFNAYLANKWVFITITNDRLSANLYINGVLMGSAEITGLGA 200
QY 183 VTANGELIFKLDGDIRTOFTWMKYFSIFNTLSQSNIEERYKIQSYSEYVKDQWGNPLM 242
DB 201 IREDNNITLKLDRCNNNQYVSIIDKFRIFCKALAPKEIEKLYTSYLSITFLRDFWGNPLR 260
QY 243 YNKEYYMFNAGNKNYSYIKLKKDSPVGEILTRSKYNQNSKYINRYDLYIGEKFIIRKXNS 302
DB 261 YDTEYLLPVASSKDVQLKNITDWMYLTNAPSVYNGKLNIVYRRLYNGLKFIKRYTPN 320
QY 303 QSINDDIVRKEDYIYLDFFNLNQEWRYTY-----KYFKKEEKLFLAPISDSDELYNTIQ 358
DB 321 NEI-DSFVKSQDGIKL-YVSYNNNNHIVGYPKDGNFNNLDRILRVGYNAPGIPLYKKME 378
QY 359 IKEYDQPTYSCQLLFKKDESTEIGLIGHRFYSGIVFEYKYDFCISKWYLKVKR 418
DB 379 AVKLRDLKTYSVQLKLYDDKNAS--LGLVGTH---NGQIGNDPNRDILLIASNWYFNLKD 433
QY 419 KPYNLKLCNWFIPKDEGWT 439
DB 434 K-----ILGCDWYFVPTDEGWT 450

RESULT 12

US-08-280-228-2
; Sequence 2, Application US/08280228
; Patent No. 5571694
; GENERAL INFORMATION:
; APPLICANT: Makoff Dr, Andrew J
; APPLICANT: Romanos Dr, Michael A
; APPLICANT: Clare Dr, Jeffrey J
; APPLICANT: Fairweather Dr, Neil F
; TITLE OF INVENTION: VACCINES
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: NIXON & VANDERHVE P.C.
; STREET: 1100 No. 5571694th Glebe Road
; CITY: Arlington,
; STATE: Virginia
; COUNTRY: U.S.A.
; ZIP: 22201-4714
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/280,228
; FILING DATE: 25-JUL-1994
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/618,312
; FILING DATE: 27-NOV-1990
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 8926832.0
; FILING DATE: 28-NOV-1989
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9006097.1
; FILING DATE: 17-MAR-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Wilson, Mary J.
; REGISTRATION NUMBER: 32,955
; REFERENCE/DOCKET NUMBER: 117-163
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703) 816-4000
; TELEFAX: (703) 816-4100
; TELEX: 200797 NIXN UR
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 452 amino acids
; TYPE: amino acid
; TOPOLOGY: linear

US-08-668-381A-5
: Sequence 5, Application US/08668381A

Qy	14	IUNRYKONNLDISG	GAXVEYVDGVEL	---NDKQFKLTSSANSKIRVTQONLIEN	69
			:::	:::	
Db	189	IUNLINDINDISD	IGFSSNVYTPDAQ	LPVINGK-AIHVNNSESEVYHKAMDIEN	247
			:::	:::	
Qy	70	SVELDFSVFWRIP	KYKNGIGONYIHNEY	YTIINCMKNN-----SGWKISIRONRIIWL	124
			:::	:::	
Db	248	DMENFTVSFWLR	VPKVSASHLQYGT	NEYSIISMKHSLSIGSVSLKGNIIWL	307
			:::	:::	
Qy	125	IDINGKTSVFEEV	NIREDISEXI-NRWEF	VITNN-LNNAKIVINGKLESNTDIDKIRE	182
			:::	:::	
Db	308	KOAGEVQIIFTR	-DLPKPNAYLANK	WFIITNDRSSANLIYINGVLMSAEITGLCA	366
			:::	:::	
Qy	183	VTANGELIFKLDG	DIRTPQIWMKYSI	NTELSOSNTEERYKIQSVSEYKDFWGNPLM	242
			:::	:::	
Db	367	IREDNNTIKLDR	CNNNOXVSDIKF	RIEPCALNFKPEKLYSYLSTIFLDFWGNPLR	426
			:::	:::	
Qy	243	YNKEYMENAGNKS	YTIKLKADSPVEG	EILTRSKYQNSKYINRDLYIGEKFIIRKSN	302
			:::	:::	
Db	427	YDTEYLLPVASS	SKDVOLKNITDY	MYLTNAPSYTNGLNIVYRRLYNGLKFIKRYTGN	486
			:::	:::	
Qy	303	QSINDDIWKEDY	YVLFDFNLQNEWR	YIY---XYFKESEKFLAPISDSDLENTIQ	358
			:::	:::	
Db	487	NET-DSFYKSGD	FKTL-YVSYNNNEH	IVGSPKDGNAFNNDLRIILRVGVNAPG-PLYKME	544
			:::	:::	
Qy	359	IKREYBQPTYSC	QLIFKDKDEEST	DEGLIGHRFYSGEIVFEETKDYFCISKYLVKVR	418
			:::	:::	

Db 545 AVKLRDLKTSYQLKLYDDKNAS--LGLVGH--NGQIGNDPREDILIASNWFYENHLKD 599
QY 419 KPYNLKLGONWOFIPKDEGWT 439
Db 600 K-----ILGCDWYFVPTDEGWT 616

Search completed: November 1, 2002, 08:17:44
Job time : 30 secs

GenCore version 5.1.3
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OM protein - protein search, using sw model

Run on: November 1, 2002, 08:17:28 ; Search time 31 seconds

(without alignments)
196.854 Million cell updates/sec

Title: US-09-910-186a-8

Perfect score: 2350

Sequence: 1 MANKYNSILNLIILRLRYK.....YNLKIGCNWQFIPKDEGWE 440

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 90412 seqs, 13869272 residues

Total number of hits satisfying chosen parameters: 90412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications-AA:

- 1: /cgn2.6/ptodata/2/pubpaa/US08_NEW_PUB.pcp.*
- 2: /cgn2.6/ptodata/2/pubpaa/PCT_NEW_PUB.pcp.*
- 3: /cgn2.6/ptodata/2/pubpaa/US06_NEW_PUB.pcp.*
- 4: /cgn2.6/ptodata/2/pubpaa/US06_PUBCOMB.pcp.*
- 5: /cgn2.6/ptodata/2/pubpaa/US07_NEW_PUB.pcp.*
- 6: /cgn2.6/ptodata/2/pubpaa/US07_PUBCOMB.pcp.*
- 7: /cgn2.6/ptodata/2/pubpaa/PCTUS_PUBCOMB.pcp.*
- 8: /cgn2.6/ptodata/2/pubpaa/US08_PUBCOMB.pcp.*
- 9: /cgn2.6/ptodata/2/pubpaa/US09_NEW_PUB.pcp.*
- 10: /cgn2.6/ptodata/2/pubpaa/US09_PUBCOMB.pcp.*
- 11: /cgn2.6/ptodata/2/pubpaa/US10_NEW_PUB.pcp.*
- 12: /cgn2.6/ptodata/2/pubpaa/US10_PUBCOMB.pcp.*
- 13: /cgn2.6/ptodata/2/pubpaa/US60_NEW_PUB.pcp.*
- 14: /cgn2.6/ptodata/2/pubpaa/US60_PUBCOMB.pcp.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	831.5	35.4	1295	US-09-726-949A-1	Sequence 1, Appli
2	826.5	35.2	425	US-09-288-326-9	Sequence 9, Appli
3	732	31.1	431	US-08-981-087A-1	Sequence 1, Appli
4	318	13.5	144	US-08-981-087A-2	Sequence 2, Appli
5	284.5	12.1	144	US-08-981-087A-3	Sequence 3, Appli
6	149.5	6.4	1086	US-09-924-154-15	Sequence 15, Appli
7	149	6.3	143	US-08-981-087A-4	Sequence 4, Appli
8	144	6.1	936	US-09-815-242-5251	Sequence 5251, Ap
9	144	6.1	1009	US-09-815-242-12141	Sequence 12141, A
10	137.5	5.9	475	US-09-774-414-3	Sequence 3, Appli
11	121	5.1	609	US-09-815-242-13683	Sequence 13683, A
12	121	5.1	1421	US-09-924-154-13	Sequence 13, Appli
13	112.5	4.8	406	US-09-765-205-8	Sequence 8, Appli
14	110.5	4.7	1093	US-09-801-368-392	Sequence 392, App
15	110	4.7	751	US-09-881-752A-280	Sequence 280, App
16	110	4.7	841	US-09-815-242-5779	Sequence 5779, Ap
17	110	4.7	841	US-09-815-242-12751	Sequence 12751, A
18	110	4.7	866	US-09-815-242-11373	Sequence 11373, A
19	109.5	4.7	829	US-09-801-368-324	Sequence 324, App

20	109.5	4.7	1018	10	US-09-815-242-5797	Sequence 5797, Ap
21	109.5	4.7	1018	10	US-09-815-242-12838	Sequence 12838, A
22	108	4.6	1143	10	US-09-924-154-14	Sequence 14, Appli
23	107.5	4.6	773	12	US-10-067-385-8	Sequence 8, Appli
24	107	4.6	347	10	US-09-816-028A-17	Sequence 17, Appli
25	107	4.6	358	10	US-09-737-178-21	Sequence 21, Appli
26	105.5	4.5	358	10	US-09-861-451A-50	Sequence 50, Appli
27	105.5	4.5	436	10	US-09-815-242-5800	Sequence 5800, Ap
28	105.5	4.5	436	10	US-09-815-242-12846	Sequence 12846, A
29	105.5	4.5	660	10	US-09-881-752A-22	Sequence 22, Appli
30	105.5	4.5	993	10	US-09-815-242-5809	Sequence 5809, Ap
31	105.5	4.5	1002	10	US-09-815-242-12899	Sequence 12899, A
32	105.5	4.5	1002	10	US-09-815-242-13158	Sequence 13158, A
33	104.5	4.4	406	9	US-09-978-295A-309	Sequence 309, App
34	104.5	4.4	442	10	US-09-741-669-397	Sequence 397, App
35	104.5	4.4	1349	10	US-09-815-242-5898	Sequence 5898, Ap
36	104.5	4.4	1349	10	US-09-815-242-13137	Sequence 13137, A
37	104	4.4	990	12	US-10-047-676A-7	Sequence 7, Appli
38	102	4.3	389	10	US-09-816-028A-34	Sequence 34, Appli
39	102	4.3	835	10	US-09-801-574-22	Sequence 22, Appli
40	101.5	4.3	2026	10	US-09-801-368-86	Sequence 86, Appli
41	101	4.3	555	8	US-08-808-031A-31	Sequence 31, Appli
42	101	4.3	586	8	US-08-808-031A-28	Sequence 28, Appli
43	100.5	4.3	516	10	US-09-986-676A-2	Sequence 2, Appli
44	100.5	4.3	516	10	US-09-971-811-2	Sequence 11, Appli
45	100.5	4.3	972	10	US-09-924-154-16	Sequence 16, Appli

ALIGNMENTS

RESULT 1
US-09-726-949A-1
; Sequence 1, Application US/09726949A
; Patent No. US20020137886A1
; GENERAL INFORMATION:
; APPLICANT: Allergan, Inc.
; APPLICANT: Lin, Wei-Jen
; APPLICANT: Aoki, Kei-Roger
; APPLICANT: Steward, Lance E.
; TITLE OF INVENTION: NEUROTOXINS WITH ENHANCED TARGET SPECIFICITY
; FILE REFERENCE: 36121-20002.00
; CURRENT APPLICATION NUMBER: US/09/736,949A
; CURRENT FILING DATE: 2000-11-29
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 1295
; TYPE: PRT
; ORGANISM: Clostridium botulinum
US-09-726-949A-1

Query Match 35.4%; Score 831.5; DB 10; Length 1295;
Best Local Similarity 40.0%; Pred. No. 6.1e-58;
Matches 180; Conservative 83; Mismatches 150; Indels 37; Gaps 10;

QY 4 KYNSEILNLIILRLRYKNDLIDLSYGAKVEYDGVELN--DKNQFKLTSSANSKIRVT 61

Db 867 EYKNIINTSILNLRYESNLIDLSYAKINGSKVNFDPIDKNOIQLFNLESSKIEVI 926

QY 62 QNQNIFNSVFLDFSVFWRIPKYNKDQNTQVHNEYIINCMKNSGWKISIRGNRII 121

Db 927 LKNAIVYNSMYENFSTFWIRPKYFN--SISLNREYTIINCMENNSGWKYSVLTNGEII 983

QY 122 WTLIDINGKTKSVFFENRIDESEKINRFFVTITNN--LNNAKIYINKGLSNTDIKDI 180

Db 994 WLTQOTEIKQVRVFKSQMINISDYINRWFIYIINRLNNSKIYINGRLIDQKPSNL 1043

QY 181 REVIANGEIIFKLDGDIRTQFIWMKYFISFNTFELSQSNIEERYKIQSYSEYKLPFGWNP 240

Db 1044 GNIHASNNIMFKLDGCRDTHRYIWKYFNLFKDELKEIKDLYDNQNSGILKDFWGY 1103

QY 241 LMYNKEYMKNAGKNSYIKLKK-----DSPVGEILTRSKYNQNSKYNYRDLVIG 291
Db 1104 LQYDKFYMLNLDPNKYVDVNVGIRGMYLKGPRGSGVMTNLYLNS-----LYRG 1156
QY 292 EKFIIRKNSQSINDIVRKEDYIYDLFFNINQWRVYTYKFKKEBEKFLAPISQSD 351
Db 1157 TKFIIRKASGN--KDNIVRNRDRVYINVVKNKRYLATNASQAGVEKILSALEIPDVG 1214
QY 352 ELYNTIQLKEYDEOP--TYSQCLFKKDEESTDEIGLIGHRFYESGIVFEYKDYFCISK 410
Db 1215 NLSQVVMKSKNDQGTINKCKM--NLQDNGNDIGFIGHQFNNTA-----KLVASN 1264
QY 411 WYLKEYVRKPYNLKLCGNQWFIKDEGWE 440
Db 1265 WYNQIERS--SRTLGSWEFIPVDDGWE 1292
RESULT 2
US-09-288-326-9
; Sequence 9, Application US/09288326
; Patent No. US20010018049A1
; GENERAL INFORMATION:
; APPLICANT: Kei Roger Aoki
; APPLICANT: George Sachs
; TITLE OF INVENTION: Method and Compositions for the
; FILE REFERENCE: 17282
; CURRENT APPLICATION NUMBER: US/09/288,326
; CURRENT FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 9
; LENGTH: 425
; TYPE: PRT
; ORGANISM: Clostridium botulinum
US-09-288-326-9
Query Match 35.2%; Score 826.5; DB 10; Length 425;
Best Local Similarity 40.2%; Pred. No. 4e-58;
Matches 179; Conservative 82; Mismatches 147; Indels 37; Gaps 10;
QY 9 ILNNIILNRYKDNLDLGSYGAKVEYDGVELN--DRNQFKLTSSANSKIRVTONONI 66
Db 2 IINTSILNRYESNHLIDLSRYASKINIGSKVNFDPIDKNQQLFNLESSEKLEVLKNAI 61
QY 67 IFNSVFLDFSSEFIRIPKYNQDGIQNYIHNEYTIINCMKNNSGKISIRGNKIITWILID 126
Db 62 VYNSWENFSEFWIRIPKYNF--SISLNNEYTIINCMKNNSGKISIRGNKIITWILID 118
QY 127 INGTKTSVFYEYNIREDSBYINRWFFVTITNN--LNNAKIYINGKLESNTDKIDREVIA 185
Db 119 TQEIQRVYFKYSQMINISDYINRWIFVTITNNLNNSKIYINGRLIDQKPSNLGNTHA 178
QY 186 NGEIIFKLDGIDTQFTWPKYSIFNTELSQNSIERYKIOSSEYKLDGFWGNPLMYNK 245
Db 179 SNMTFKLDGDRTHRIWIKYNFLPKLEKEIKDLQDQNSGILKDFGDIYQDK 238
QY 246 EYVMEFNAGKNSYIKLKK-----DSPVGEILTRSKYNQNSKYNYRDLVIGKFTI 296
Db 239 PYMLNLYDPKPYVDVNVGIRGMYLKGPRGSGVMTNLYLNS-----LYRGKFTI 291
QY 297 RKNSQSINDIVRKEDYIYDLFFNINQWRVYTYKFKKEBEKFLAPISQSDLYNT 356
Db 292 KKYASGN--KDNIVRNRDRVYINVVKNKRYLATNASQAGVEKILSALEIPVGNLSOV 349
QY 357 IOIKEYDEOP--TYSQCLFKKDEESTDEIGLIGHRFYESGIVFEYKDYFCISKWYLKE 415
Db 350 VYMSKNDQGTINKCKM--NLQDNGNDIGFIGHQFNNTA-----KLVASNWNQ 399
QY 416 VYKRPYNLKLGNQWFIKDEGWE 440
Db 400 TERS--SRTLGSWEFIPVDDGWE 422

RESULT 3
US-08-981-087A-1
; Sequence 1, Application US/08981087A
; Patent No. US20020081304A1
; GENERAL INFORMATION:
; APPLICANT: Elmore, Michael J.
; APPLICANT: Mauchline, Margaret L.
; APPLICANT: Minton, Nigel P.
; APPLICANT: Pasechnik, Vladimir A.
; APPLICANT: Titball, Richard W.
; TITLE OF INVENTION: TYPE F BOTULINUM TOXIN AND USE THEREOF
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: NIXON & VANDERHYE P.C.
; STREET: 1100 No. US20020081304Alth Glebe Rd. 8th floor
; CITY: Arlington
; STATE: VA
; COUNTRY: USA
; ZIP: 22201-4741
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/981.087A
; FILING DATE: 27-MAY-1998
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/GB96/01409
; FILING DATE: 12-JUN-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9511909.5
; FILING DATE: 12-JUN-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Crawford, Arthur R.
; REGISTRATION NUMBER: 25,327
; REFERENCE/DOCKET NUMBER: 124-686
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 703-816-4000
; TELEFAX: 703-816-4100
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 431 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-981-087A-1
Query Match 31.1%; Score 732; DB 8; Length 431;
Best Local Similarity 35.2%; Pred. No. 1.2e-50;
Matches 161; Conservative 88; Mismatches 149; Indels 60; Gaps 13;
QY 3 KYNSEILNIIILNRYKDNLDLGSYGAKVEYDGVELN--NDRNQFKLTSSANSKIRV 60
Db 13 NKLYKKIDNSILDMRYENKKNFIDISYGSNISINGDVIIYSTNRNQFGIYSSKPSVNI 72
QY 61 TQONQIIFNSVFLDFSSEFIRIPKYNQDGIQNYIHNEYTIINCMK--NNSGKISIRGN 119
Db 73 AQNDIILNRYQNFISFSEFWIRIPKYNF--KYNLNNEYTIIDICINNSGKISILNKN 129
QY 120 IITWFLIDNGKTSVFYEYNIREDSBYINRWFFVTITNN--LNNAKIYINGKLESNTDK 178
Db 130 IITWFLQDTAGNKKLVENYQMTISDYNKWIIFVTITNNLNSRIYINGNLIDEKSI 189
QY 179 DIREVIANGELIIFKLDGIDTQFTWPKYSIFNTELSQNSIERYKIOSSEYKLDGFWG 238
Db 190 NLGDIHVSNDILFKVIGCND--TRYVGIRYFKVEDTELKGTETIETLYSDEPFSILKDFW 248
QY 239 NPLMYNKEYMKNAGKNSYIKLKKDSPVGEILTRSKYNQNSKYINVR-----287

Db 249 NVLLYNKRYLLNL-----LRTDKSI-----TONSFLNINQORGVYQKPNIF 291
QY 288 ---LVIGKEFIIRKSNOSIN-DIVRKEDYIYLDFFNLNQEWVYKYFKKEEKL 342
Db 292 SNTRLTYGVEVIRKNGSDISNTDFVRKNDLAVINVVDROVYRLVADISIAKPKII 351
QY 343 FLAPISDSDELNTIQLKEYDQPTYSQQLFKKDEESTDEIGLIGHRFYVESGIVFEY 402
Db 352 KLIRTSNNSNLGQIIVM---DSIGNNCTMNFQNN--NGNIGLLGFH----- 394
QY 403 KDFECISKVLEKVRKPKYNLKLGCNWOIFPKDEGWE 440
Db 395 SNNLVASSWYNNKIRKN--TSSNGCFWFSISKEHGWOE 430

RESULT 4
US-08-981-087A-2
; Sequence 2, Application US/08981087A
; Patent No. US20020081304A1
; GENERAL INFORMATION:
; APPLICANT: Elmore, Michael J.
; APPLICANT: Mauchline, Margaret L.
; APPLICANT: Minton, Nigel P.
; APPLICANT: Pasechnik, Vladimir A.
; APPLICANT: Titball, Richard W.
; TITLE OF INVENTION: TYPE F BOTULINUM TOXIN AND USE THEREOF
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: NIXON & VANDERHYE P.C.
; STREET: 1100 No. US20020081304A1alth Glebe Rd. 8th floor
; CITY: Arlington
; STATE: VA
; COUNTRY: USA
; ZIP: 22201-4741
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/981,087A
; FILING DATE: 27-MAY-1998
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/GB96/01409
; FILING DATE: 12-JUN-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9511909.5
; FILING DATE: 12-JUN-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Crawford, Arthur R.
; REGISTRATION NUMBER: 25,327
; REFERENCE/DOCKET NUMBER: 124-688
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 703-816-4000
; TELEFAX: 703-816-4100
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 144 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-981-087A-2

Query Match 13.5%; Score 318; DB 8; Length 144;
Best Local Similarity 45.2%; Pred. No. 1.4e-18;
Matches 61; Conservative 33; Mismatches 35; Indels 6; Gaps 3;
QY 3 KYNSEILNIIILNRKDNLDLGGYKAKVVDGVCL--NDKQPKLTSSANSKIRV 60
Db 13 NKLYKKIDNSILDYRNNKFDISYGSNISGVINGDVYISTNRNQFGIYSSKPSVNI 72

QY 61 TQONLIIFNSVFLDSFVSWTRIPRYKNDGTONYIHNYTIINCMK NNSGWKISIRGNR 119
Db 73 AQNDIINYGRYQNESISFVWRIPKRYFN---KVLNNEYTIIDICIRNNSGWKISLNYK 129
QY 120 IITWLTIDINGTKSV 134
Db 130 IITWLTODTAGNCKL 144

RESULT 5
US-08-981-087A-3
; Sequence 3, Application US/08981087A
; Patent No. US20020081304A1
; GENERAL INFORMATION:
; APPLICANT: Elmore, Michael J.
; APPLICANT: Mauchline, Margaret L.
; APPLICANT: Minton, Nigel P.
; APPLICANT: Pasechnik, Vladimir A.
; APPLICANT: Titball, Richard W.
; TITLE OF INVENTION: TYPE F BOTULINUM TOXIN AND USE THEREOF
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: NIXON & VANDERHYE P.C.
; STREET: 1100 No. US20020081304A1alth Glebe Rd. 8th floor
; CITY: Arlington
; STATE: VA
; COUNTRY: USA
; ZIP: 22201-4741
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/981,087A
; FILING DATE: 27-MAY-1998
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/GB96/01409
; FILING DATE: 12-JUN-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: GB 9511909.5
; FILING DATE: 12-JUN-1995
; ATTORNEY/AGENT INFORMATION:
; NAME: Crawford, Arthur R.
; REGISTRATION NUMBER: 25,327
; REFERENCE/DOCKET NUMBER: 124-688
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 703-816-4000
; TELEFAX: 703-816-4100
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 144 amino acids
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-981-087A-3

Query Match 12.1%; Score 284.5; DB 8; Length 144;
Best Local Similarity 39.3%; Pred. No. 6e-16;
Matches 59; Conservative 27; Mismatches 45; Indels 19; Gaps 4;
QY 136 FEYNIREDISSEYINRWFVTITNN-LNNAKIVYINGKLESNTDIDKIDREVIANGEIIFKLD 194
Db 2 FNTQMTISIDYINKWIFVTITNNRGNRIYINGMLIDEKISINLGDHYSDNLFLKIV 61
QY 195 GDIDRTQFIWMKYFSINFTELQSNIERYKIQSYSEYLKDFWGNPLMYNKYYWFNAGN 254
Db 62 GCOND-TRYVGIRYFKVFDTELGTETIETLYSDPDPSILKDFWGNVLLYLNKRYLLNL-- 118
QY 255 KNSYIKLKDSPPYGEILTRSKYQNQSKYIN 284


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; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-03-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; NUMBER OF SEQ ID NOS: 14110
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5251
; LENGTH: 996
; TYPE: PRT
; ORGANISM: Staphylococcus aureus
; US-09-815-242-5251

Query Match          6.1%; Score 144; DB 10; Length 996;
Best Local Similarity 21.0%; Pred. No. 0.0007;
Matches 106; Conservative 82; Mismatches 155; Indels 162; Gaps 28;

QY 3 NKNSEILNIIILRYKD-----NNLIDLSGYGAKVEYDVGVELNDKNQFKLTSSAN 55
Db 386 NKYOQSYLN--IERLTDEQGLDELNNLIK-----GLEKVEDSIGNESDYEKIILNN 438
QY 56 SKIRVTQNONIIFNSVFLDSFVIRIPRYKND-----GIONTHNEYTIINCMK 106
Db 439 AITNINNEINVIKEN-----EKAKDELKDLGSKQELNQEINKEKTI---LK 482
QY 107 NNSGWKISIRGNRIIWLIDINGKTKSVFFEY-----NIREDISSEVINRWF 152
Db 483 N-----LEIKDRYDKSKLDLNDK--BSFISEIKSAVKIGDQCPICGNEIQDLGHHID--- 533
QY 153 FVTITNNLNNAK-IYIN-GKLES-----NTDINKDIREVANGIEIFKLDGDDRTQFIWM 205
Db 534 FDSIAKQNEIKELIANIHMTESNIAVHNSKIFVNEKISN--INIKTQSDLS----- 584
QY 206 KYFSIFNTEL--SQSNIERYKIQSYSEVLKDFWGNPLM--YNKEYYMFNAGKN-SYIK 260
Db 585 --LEVLNKRLLLENALNNQDLNKFIEQMKEKDLTLQIHNKQLRL---NKNSEELK 638
QY 261 LKQDSPVGEILTTSKYN-----QNSKYINRYDLVIGKFIIR-- 298
Db 639 ICRNL-ITEFETLSKYNNTNFVDYKQYIQDVNQHQEHSNQIEDKLIQLSORKLIEQNN 697
QY 299 ----KNSQSINDIVRKEDYIYLDFFNLNQ-----EWR-----VYTYK 333
Db 698 LNHYENQLETYNNDLELNEQSIEMESRLNLTDDNDINETIAWRGQEELQKRDYTKR 757
QY 334 YFKKEEKLFLAPIS-----DSDELYNTIQIKE-----YDEQPT--YSCOLLFKDEE 379
Db 758 YHEFEMEIALESITKDKKELSDSKLDKDDYELAKGKMTLIDEYSAVHYOCONNIKTQS 817
QY 380 STDEIGLIGIHRFYESGIVFEEYKD 404
Db 818 IVSHINYLN-----QELKD 831

RESULT 9
US-09-815-242-12141
; Sequence 12141, Application US/09815242
; Patent No. US20020061569A1
; GENERAL INFORMATION:
; APPLICANT: Haselbeck, Robert
; APPLICANT: Ohlsen, Karl L.
; APPLICANT: Zyskind, Judith W.
; APPLICANT: Wall, Daniel
; APPLICANT: Trawick, John D.
```

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; APPLICANT: Carr, Grant J.
; APPLICANT: Yamamoto, Robert T.
; APPLICANT: Xu, H. Howard
; TITLE OF INVENTION: Identification of Essential Genes in
; TITLE OF INVENTION: Prokaryotes
; FILE REFERENCE: ELITRA.011A
; CURRENT APPLICATION NUMBER: US/09/815,242
; CURRENT FILING DATE: 2001-03-21
; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; NUMBER OF SEQ ID NOS: 14110
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12141
; LENGTH: 1009
; TYPE: PRT
; ORGANISM: Staphylococcus aureus
; US-09-815-242-12141

Query Match          6.1%; Score 144; DB 10; Length 1009;
Best Local Similarity 21.0%; Pred. No. 0.00071;
Matches 106; Conservative 82; Mismatches 155; Indels 162; Gaps 28;

QY 3 NKNSEILNIIILRYKD-----NNLIDLSGYGAKVEYDVGVELNDKNQFKLTSSAN 55
Db 386 NKYOQSYLN--IERLTDEQGLDELNNLIK-----GLEKVEDSIGNESDYEKIILNN 438
QY 56 SKIRVTQNONIIFNSVFLDSFVIRIPRYKND-----GIONTHNEYTIINCMK 106
Db 439 AITNINNEINVIKEN-----EKAKDELKDLGSKQELNQEINKEKTI---LK 482
QY 107 NNSGWKISIRGNRIIWLIDINGKTKSVFFEY-----NIREDISSEVINRWF 152
Db 483 N-----LEIKDRYDKSKLDLNDK--BSFISEIKSAVKIGDQCPICGNEIQDLGHHID--- 533
QY 153 FVTITNNLNNAK-IYIN-GKLES-----NTDINKDIREVANGIEIFKLDGDDRTQFIWM 205
Db 534 FDSIAKQNEIKELIANIHMTESNIAVHNSKIFVNEKISN--INIKTQSDLS----- 584
QY 206 KYFSIFNTEL--SQSNIERYKIQSYSEVLKDFWGNPLM--YNKEYYMFNAGKN-SYIK 260
Db 585 --LEVLNKRLLLENALNNQDLNKFIEQMKEKDLTLQIHNKQLRL---NKNSEELK 638
QY 261 LKQDSPVGEILTTSKYN-----QNSKYINRYDLVIGKFIIR-- 298
Db 639 ICRNL-ITEFETLSKYNNTNFVDYKQYIQDVNQHQEHSNQIEDKLIQLSORKLIEQNN 697
QY 299 ----KNSQSINDIVRKEDYIYLDFFNLNQ-----EWR-----VYTYK 333
Db 698 LNHYENQLETYNNDLELNEQSIEMESRLNLTDDNDINETIAWRGQEELQKRDYTKR 757
QY 334 YFKKEEKLFLAPIS-----DSDELYNTIQIKE-----YDEQPT--YSCOLLFKDEE 379
Db 758 YHEFEMEIALESITKDKKELSDSKLDKDDYELAKGKMTLIDEYSAVHYOCONNIKTQS 817
QY 380 STDEIGLIGIHRFYESGIVFEEYKD 404
Db 818 IVSHINYLN-----QELKD 831

RESULT 10
US-09-774-414-3
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; PRIOR APPLICATION NUMBER: 60/191,078
; PRIOR FILING DATE: 2000-03-21
; PRIOR APPLICATION NUMBER: 60/206,848
; PRIOR FILING DATE: 2000-03-23
; PRIOR APPLICATION NUMBER: 60/207,727
; PRIOR FILING DATE: 2000-03-26
; PRIOR APPLICATION NUMBER: 60/242,578
; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; NUMBER OF SEQ ID NOS: 14110
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 13683
; LENGTH: 609
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-09-815-242-13683

Query Match          5.1%; Score 121; DB 10; Length 609;
Best Local Similarity 18.5%; Pred. No. 0.025;
Matches 72; Conservative 61; Mismatches 136; Indels 120; Gaps

QY   74 DFSVSFWIRIPKYK-----NDGIQNIHNEYTIINCMKNNSGWKISIRGNRII 121
      ||| : : : ||| : : : ||| : : :
DB   36 DGMGRNYLDFPSYKELYVMYDNFSLSDGLYFRDRQ-----              73

QY   122 WFLIDINGTKTSVEFFVNIREDIS-----BYINRWFEVITNLNNAKIYINGKLESN 174
      : : : : : : : : | : : : | : : : | : : : | : : :
DB   74 ----EVRNQR--TYSHIIQSFPDHLTPQINRIIGYEIV-----KELTGGRRFTI 119

QY   175 TDIKDIRVIANGELIEFKLDGDDIRDTQFTWMYFYIFNTLSQSN-----IEERYK 225
      : : : : : : : : | : : : | : : : | : : : | : : :
DB   120 VATHVDKGHIINHILANSIDONS DK -KFLW-NYKSERNLRMVSDRLSKIAGAIENRYS 177

QY   226 IGSYSEYLKDFWGPNLMYNKEYYMFNAGNKNSYIKLK-----DSPV 267
      : : : : : : : : | : : : | : : : | : : : | : : :
DB   178 HQYEIVRYKTNYKEIKQRYVFYIENSKNPFEDFRKKAKALHIIDFRKHKVTFMTDSNM 237

QY   268 GBILTRSKYNOSKIYINRYDLIGEAFIRKSN-----SOSIND-----DI 309
      : : : : : : : : | : : : | : : : | : : : | : : :
DB   238 KQVRDDKLNRKP---YNETYFKQKFVQREINIILEFLPKMKNNELIQQAEEFDLKI 294

QY   310 VRKEDYIYLDP-----FNLGWERVYYTYKFKKEEKLFAPISDSDELYNTIOI 359
      : : : : : : : : | : : : | : : : | : : : | : : :
DB   295 IPKEHXVLFEFGNGIKLSELGKMNOISVSIFODIFYNNKNE-TFVLDDNNLLIELYNKEKL 353

QY   360 KYVDQPT-----YSCQLLFRKKBDESTDEI 384
      : : : : : : : : | : : : | : : : | : : : | : : :
DB   354 IXEKELPTEEVVKWSYQDFKRNRDAVHEL 382

RESULT 12
US-09-924-154-13
; Sequence 13, Application US/09924154
; Patent No. US20020127241A1
; GENERAL INFORMATION:
; APPLICANT: Narum, David L.
; APPLICANT: Sim, Kim L.
; TITLE OF INVENTION: Anti-plasmodium Compositions and Methods of Use
; FILE REFERENCE: US213-0465 43170-262105
; CURRENT APPLICATION NUMBER: US/09/924,154
; CURRENT FILING DATE: 2001-08-07
; PRIOR APPLICATION NUMBER: US 60/223,525
; PRIOR FILING DATE: 2000-08-07
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
; LENGTH: 1421
; TYPE: PRT
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RESULT 12
US-09-924-154-13
, Sequence 13, Application US/09924154
, Patent No. US20020127411
, GENERAL INFORMATION:
, APPLICANT: Narum, David L.
, APPLICANT: Sim, Kim L.
, TITLE OF INVENTION: Anti-Plasmodium Compositions and Methods of Use
, FILE REFERENCE: 05213-0465 43170-262105
, CURRENT APPLICATION NUMBER: US/09/924,154
, CURRENT FILING DATE: 2001-08-07
, PRIOR APPLICATION NUMBER: US 60/223,525
, PRIOR FILING DATE: 2000-08-07
, NUMBER OF SEQ ID NOS: 17
, SOFTWARE: PatentIn version 3.1
, SEQ ID NO 13
, LENGTH: 1421
, TYPE: PR

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[illegible]

QY 199 RTQ-----FIMWKFSIFN-----TELSSNIEERY----KIQSYSEVLKD 235
Db 342 SOQQOQHHEYITNNFNHSMDSITNGSKRRKKLNSQOQFYNOOEKIQRFKLMKQ 401
QY 236 --FW---GNPLMYNEYNFAGNNSYIKLKKDPSVGEIILTRSKYNQNSKIYINRDL 288
Db 402 PLLMQSFQPNPDHNEYCDNSGNSNNNTVASNGSSI-EVFS-SNENDNSNMMSRSM 457

RESULT 15
US-09-881-752A-280
; Sequence 280, Application US/09881752A
; Patent No. US20020115078A1
; GENERAL INFORMATION:
; APPLICANT: Kleanthous, Harold
; APPLICANT: Al-Garawi, Amal
; APPLICANT: Miller, Charles
; APPLICANT: Tomb, Jean-Francois
; APPLICANT: Oomen, Raymond P.
; TITLE OF INVENTION: Identification of Polynucleotides
; TITLE OF INVENTION: Encoding No. US20020115078A1el Helicobacter Polypeptides in the
; TITLE OF INVENTION: Genome
; FILE REFERENCE: 06132/041002
; CURRENT APPLICATION NUMBER: US/09/881,752A
; CURRENT FILING DATE: 2001-06-15
; PRIOR APPLICATION NUMBER: US 08/833,457
; PRIOR FILING DATE: 1997-04-01
; NUMBER OF SEQ ID NOS: 370
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 280
; LENGTH: 751
; TYPE: PRT
; ORGANISM: Helicobacter pylori
US-09-881-752A-280

Query Match 4.7%; Score 110; DB 10; Length 751;
Best Local Similarity 16.8%; Pred. No. 0.24;
Matches 94; Conservative 76; Mismatches 162; Indels 226; Gaps 25;

QY 20 KNNLIDLSGYGAKVEYDGVDELNKNQPKLTSSANSKIRVTQNONII----- 67
Db 229 RDKNVLPF-----RVEYHNTIKR--KEDIK-----DNKYRAYDEKNAALLDTRRIKEITKC 276
QY 68 -----FNSVFLDFSV-----SFWRIPKPKND-----GIONYHN-EYTIINCM 105
Db 277 ILRFNQTAKNKFNSILACSIEALKKYQAFKEKHDLKIAAFSANEEDTLEDE 336
QY 106 KNSGWKISIRNR--IITWLDINGKTSVFPEYNIREDISEYINRWFFVITNNLNA 163
Db 337 NNEACRLD-KSSRDFLEGAIADYNGM-----FGVSPDTSQKFSQYKDLQSKMKER 388
QY 164 KIYINGKLESNTDIKDIREVYIANGELIFKLDGIDIDTQFIW---MKYESIFNTELSOSN 219
Db 389 KI-----DLIMVYN-----MELTGEDATRLNTLWVDKNTLKHGLIQAQFSRNR 431
QY 220 IEERYK-----IQSYSEYIKDFWGNPLMYNKEY 247
Db 432 ILDSVKTHGNTVCFRDLEQDLNDALMFGNKDAQSALLRKRYEDYLGKGTDN---NKEY 487
QY 248 Y-----MFNAGNKNSTYKL-----KDSVPVGEILT 272
Db 488 EGYEGLIKRLLTFEPLAEPTVSQKDFIKLFGKILKLENTLNSFENFKDDYIN---P 544
QY 273 RSKYNQNSKYINRDLYIGKFIIRKNSQSINDDIV----- 310
Db 545 RFDQYQSKYLDYDAMRSEK-----GKDKEEINDDLIFEIELIKQVEYNIDYILNLTEE 599
QY 311 -----RKEDYT--YLDFFNLNOEWRVYTYKYFKKEEK 341
Db 600 FAKHGVEIQGVKTKIEPIINSIELNKKDLIMDFDKYNKDQEVHAHFQDYTHQKRE- 658
QY 342 LFLAPISDSDELYNTIQIKEYDEQPTVSCQLLFFKKBDEESTDEIGLIGIHRFYESGIVFEE 401

Db 659 -----EEFQNIIEENRLNEEKAYS-----FMQHAFKGEISFSGT-----EFPKLIIEE 701
QY 402 YADYFCISKWILKEVKKR 419
Db 702 KPSMEFGKNSRY-QEYKEK 718

Search completed: November 1, 2002, 08:24:23
Job time : 34 secs

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OM protein - protein search, using sw model

Run on: November 1, 2002, 07:20:38 ; Search time 291 Seconds
(without alignments)
974.854 Million cell updates/sec

Title: US-09-910-186A-8
Perfect score: 2350
Sequence: 1 MANKYNSILNIIILRYK.....YNLKGNCWQIFPKDEGWTIE 440

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 4569144 seqs, 644733110 residues

Total number of hits satisfying chosen parameters: 4569144

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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2:	/cgn2_6/ptodata/1/paa/US06_COMB.pap.*
3:	/cgn2_6/ptodata/1/paa/US07_COMB.pap.*
4:	/cgn2_6/ptodata/1/paa/US08_COMB.pap.*
5:	/cgn2_6/ptodata/1/paa/US09_COMB.pap.*
6:	/cgn2_6/ptodata/1/paa/US10_COMB.pap.*
7:	/cgn2_6/ptodata/1/paa/US11_COMB.pap.*
8:	/cgn2_6/ptodata/1/paa/US12_COMB.pap.*
9:	/cgn2_6/ptodata/1/paa/US13_COMB.pap.*
10:	/cgn2_6/ptodata/1/paa/US14_COMB.pap.*
11:	/cgn2_6/ptodata/1/paa/US15_COMB.pap.*
12:	/cgn2_6/ptodata/1/paa/US16_COMB.pap.*
13:	/cgn2_6/ptodata/1/paa/US17_COMB.pap.*
14:	/cgn2_6/ptodata/1/paa/US18_COMB.pap.*
15:	/cgn2_6/ptodata/1/paa/US19_COMB.pap.*
16:	/cgn2_6/ptodata/1/paa/US20_COMB.pap.*
17:	/cgn2_6/ptodata/1/paa/US21_COMB.pap.*
18:	/cgn2_6/ptodata/1/paa/US22_COMB.pap.*
19:	/cgn2_6/ptodata/1/paa/US23_COMB.pap.*
20:	/cgn2_6/ptodata/1/paa/US24_COMB.pap.*
21:	/cgn2_6/ptodata/1/paa/US25_COMB.pap.*
22:	/cgn2_6/ptodata/1/paa/US26_COMB.pap.*
23:	/cgn2_6/ptodata/1/paa/US27_COMB.pap.*
24:	/cgn2_6/ptodata/1/paa/US28_COMB.pap.*
25:	/cgn2_6/ptodata/1/paa/US29_COMB.pap.*
26:	/cgn2_6/ptodata/1/paa/US30_COMB.pap.*
27:	/cgn2_6/ptodata/1/paa/US31_COMB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2350	100.0	440	20	US-09-611-419A-8
2	2350	100.0	440	23	US-09-910-186A-8
3	2340	99.6	472	1	PCT-US97-15394-46
4	2340	99.6	472	11	US-08-704-159-46
5	2340	99.6	472	26	US-10-271-012-46
6	2340	99.6	850	5	US-08-123-975A-2

7	2340	99.6	1070	22	US-09-831-050-4	Sequence 4, Appli
8	2340	99.6	1095	22	US-09-831-050-7	Sequence 7, Appli
9	2340	99.6	1291	1	PCT-US97-15394-42	Sequence 42, Appli
10	2340	99.6	1291	11	US-08-704-159-42	Sequence 42, Appli
11	2340	99.6	1291	26	US-10-271-012-42	Sequence 42, Appli
12	2337	99.4	439	5	US-08-123-975A-5	Sequence 5, Appli
13	2283.5	97.2	436	20	US-09-611-419A-40	Sequence 40, Appli
14	2227.5	94.8	843	20	US-09-611-419A-42	Sequence 42, Appli
15	2102	89.4	472	1	PCT-US97-15394-44	Sequence 44, Appli
16	2102	89.4	472	11	US-08-704-159-44	Sequence 44, Appli
17	2102	89.4	472	26	US-10-271-012-44	Sequence 44, Appli
18	2099	89.3	1291	1	PCT-US97-15394-40	Sequence 40, Appli
19	2099	89.3	1291	11	US-08-704-159-40	Sequence 40, Appli
20	2099	89.3	1291	19	US-09-547-188-4	Sequence 35147, A
21	2099	89.3	1291	21	US-09-791-537-35147	Sequence 4, Appli
22	2099	89.3	1291	26	US-10-205-516-4	Sequence 4, Appli
23	2099	89.3	1291	26	US-10-271-012-40	Sequence 40, Appli
24	2099	89.3	1301	26	US-10-205-516-18	Sequence 18, Appli
25	2097	89.2	441	21	US-09-791-537-49461	Sequence 49461, A
26	1667	70.9	1169	26	US-10-241-596-20	Sequence 20, Appli
27	1168.5	49.7	449	20	US-09-611-419A-18	Sequence 18, Appli
28	1168.5	49.7	449	23	US-09-910-186A-18	Sequence 79, Appli
29	1168.5	49.7	473	1	PCT-US97-15394-79	Sequence 79, Appli
30	1168.5	49.7	473	11	US-08-704-159-79	Sequence 79, Appli
31	1168.5	49.7	473	26	US-10-271-012-79	Sequence 77, Appli
32	1168.5	49.7	1297	1	PCT-US97-15394-77	Sequence 77, Appli
33	1168.5	49.7	1297	11	US-08-704-159-77	Sequence 77, Appli
34	1168.5	49.7	1297	19	US-09-547-188-14	Sequence 14, Appli
35	1168.5	49.7	1297	21	US-09-791-537-14255	Sequence 14255, A
36	1168.5	49.7	1297	21	US-09-791-537-152350	Sequence 152350, A
37	1168.5	49.7	1297	26	US-10-205-516-14	Sequence 14, Appli
38	1168.5	49.7	1297	26	US-10-271-012-77	Sequence 77, Appli
39	1168.5	49.7	1307	26	US-10-205-516-28	Sequence 28, Appli
40	831.5	35.4	434	20	US-09-611-419A-4	Sequence 4, Appli
41	831.5	35.4	434	23	US-09-910-186A-4	Sequence 4, Appli
42	831.5	35.4	435	20	US-09-611-419A-6	Sequence 6, Appli
43	831.5	35.4	435	23	US-09-910-186A-6	Sequence 6, Appli
44	831.5	35.4	437	20	US-09-611-419A-2	Sequence 2, Appli
45	831.5	35.4	437	23	US-09-910-186A-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1
US-09-611-419A-8
; Sequence 8, Application US/09611419A
; GENERAL INFORMATION:
; APPLICANT: Smith, Leonard A.
; APPLICANT: Byrne, Michael P.
; APPLICANT: Middlebrook, John L.
; APPLICANT: Lapenotiere, Hugh
; APPLICANT: Clayton, Michael A.
; APPLICANT: Brown, Douglas R.
; TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
; FILE REFERENCE: A33626 067252.0105
; CURRENT APPLICATION NUMBER: US/09/611,419A
; CURRENT FILING DATE: 2000-07-06
; PRIOR APPLICATION NUMBER: PCT/US00/12890
; PRIOR FILING DATE: 2000-05-12
; PRIOR APPLICATION NUMBER: 60/133,865
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,866
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,867
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,868
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,869
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/146,192
; PRIOR FILING DATE: 1999-07-29

; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 440
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Encoded polypeptide of a synthetic construct based
; OTHER INFORMATION: on BoNTB Hc
US-09-611-419A-8

Query Match 100.0%; Score 2350; DB 20; Length 440;
Best Local Similarity 100.0%; Pred. No. 3e-206;
Matches 440; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MANKYSEILNLIILNRYKNDLIDLSYGAKVEYDGVDELNDKNQKFLTSSANSKIRV 60
QY 61 TQNONIIFNSVFLDFSVFWIRIPKYKNDGIONYIHNEYTTINCMKNSGKWSIRGNRI 120
DB 61 TQNONIIFNSVFLDFSVFWIRIPKYKNDGIONYIHNEYTTINCMKNSGKWSIRGNRI 120
QY 121 IWTLDINGKTKSVFEYINREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 180
DB 121 IWTLDINGKTKSVFEYINREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 180
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 240
DB 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 240
QY 241 LMNYKEYMFNAGKNSYIKLKDPSVGEILTRSKYNSKYNINRDLYIGKFTIRKKS 300
DB 241 LMNYKEYMFNAGKNSYIKLKDPSVGEILTRSKYNSKYNINRDLYIGKFTIRKKS 300
QY 301 NSQSINDIIVRKEDYIYLDFFNLNQEWRYTYKYFKKEBEKFLAPISDSDELYNTIOIK 360
DB 301 NSQSINDIIVRKEDYIYLDFFNLNQEWRYTYKYFKKEBEKFLAPISDSDELYNTIOIK 360
QY 361 EYDEQPTYSQCLLFKDEESTDEIGLIGHRFVESGIVFEYKDYFCISKWYLKEVKRKP 420
DB 361 EYDEQPTYSQCLLFKDEESTDEIGLIGHRFVESGIVFEYKDYFCISKWYLKEVKRKP 420
QY 421 YNLKLCGNWQFIKDEGWTE 440
DB 421 YNLKLCGNWQFIKDEGWTE 440

RESULT 2
US-09-910-186A-8
; Sequence 8, Application US/09910186A
; GENERAL INFORMATION:
; APPLICANT: U.S. Army Medical Research & Materiel Command
; TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
; FILE REFERENCE: A33626-A 067252.0107
; CURRENT APPLICATION NUMBER: US/09/910,186A
; CURRENT FILING DATE: 2001-07-20
; PRIOR APPLICATION NUMBER: PCT/US00/12890
; PRIOR FILING DATE: 2000-05-12
; PRIOR APPLICATION NUMBER: 09/611,419
; PRIOR FILING DATE: 2000-07-06
; PRIOR APPLICATION NUMBER: 60/133,865
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,866
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,867
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,868
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,869
; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 60/133,873

; PRIOR FILING DATE: 1999-05-12
; PRIOR APPLICATION NUMBER: 08/123,975
; PRIOR FILING DATE: 1993-09-21
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 440
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic construct based on Clostridium botulinum
; OTHER INFORMATION: sequence
US-09-910-186A-8

Query Match 100.0%; Score 2350; DB 23; Length 440;
Best Local Similarity 100.0%; Pred. No. 3e-206;
Matches 440; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MANKYSEILNLIILNRYKNDLIDLSYGAKVEYDGVDELNDKNQKFLTSSANSKIRV 60
DB 1 MANKYSEILNLIILNRYKNDLIDLSYGAKVEYDGVDELNDKNQKFLTSSANSKIRV 60
QY 61 TQNONIIFNSVFLDFSVFWIRIPKYKNDGIONYIHNEYTTINCMKNSGKWSIRGNRI 120
DB 61 TQNONIIFNSVFLDFSVFWIRIPKYKNDGIONYIHNEYTTINCMKNSGKWSIRGNRI 120
QY 121 IWTLDINGKTKSVFEYINREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 180
DB 121 IWTLDINGKTKSVFEYINREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 180
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 240
DB 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 240
QY 241 LMNYKEYMFNAGKNSYIKLKDPSVGEILTRSKYNSKYNINRDLYIGKFTIRKKS 300
DB 241 LMNYKEYMFNAGKNSYIKLKDPSVGEILTRSKYNSKYNINRDLYIGKFTIRKKS 300
QY 301 NSQSINDIIVRKEDYIYLDFFNLNQEWRYTYKYFKKEBEKFLAPISDSDELYNTIOIK 360
DB 301 NSQSINDIIVRKEDYIYLDFFNLNQEWRYTYKYFKKEBEKFLAPISDSDELYNTIOIK 360
QY 361 EYDEQPTYSQCLLFKDEESTDEIGLIGHRFVESGIVFEYKDYFCISKWYLKEVKRKP 420
DB 361 EYDEQPTYSQCLLFKDEESTDEIGLIGHRFVESGIVFEYKDYFCISKWYLKEVKRKP 420
QY 421 YNLKLCGNWQFIKDEGWTE 440
DB 421 YNLKLCGNWQFIKDEGWTE 440

RESULT 3
PCT-US97-15394-46
; Sequence 46, Application PC/TUS9715394
; GENERAL INFORMATION:
; APPLICANT: Williams, James A.
; APPLICANT: Thalley, Bruce S.
; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
; TITLE OF INVENTION: Botulinum Neurotoxin
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESS: Medlen & Carroll
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California
; COUNTRY: United States of America
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:

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; APPLICATION NUMBER: PCT/US97/15394
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Ingolia, Diane E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPHD-02304
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410
; TELEFAX: (415) 397-8338
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 472 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
PCT-US97-15394-46

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Query Match          99.6%; Score 2340; DB 1; Length 472;
Best Local Similarity 99.5%; Pred. No. 2.8e-205;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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QY 1 MANKYSEILNNILNRYKDNLDLGGYAKVEYDGVVGLNDKKNQKLTSSANSKIRV 60
DB 33 MFNKYSEILNNILNRYKDNLDLGGYAKVEYDGVVGLNDKKNQKLTSSANSKIRV 92
QY 61 TQNONIIFNSVFLDFSVFWIRPKYKNDGIONYIHNEYTIINCMKNNSGWKISIRGNRI 120
DB 93 TQNONIIFNSVFLDFSVFWIRPKYKNDGIONYIHNEYTIINCMKNNSGWKISIRGNRI 152
QY 121 IWTLDINGKTKSVFFEYFNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 180
DB 153 IWTLDINGKTKSVFFEYFNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 212
QY 181 REVANGEEIIFKLDGDDIRTOFIWMKYFSFNTLSQSNIEERYKIQSYSEYLDKDFWGNP 240
DB 213 REVANGEEIIFKLDGDDIRTOFIWMKYFSFNTLSQSNIEERYKIQSYSEYLDKDFWGNP 272
QY 241 LMVKEYYMFNAGNKNYSYIKLKDPSVGEILTRSKYNQNSKYINRYDLVIGKFIIRRS 300
DB 273 LMVKEYYMFNAGNKNYSYIKLKDPSVGEILTRSKYNQNSKYINRYDLVIGKFIIRRS 332
QY 301 NSQSINDDIVRKEDIYILDFNQLNQERVVTYKYFKKEEKLFLAPISDSDEFYNTIQIK 360
DB 333 NSQSINDDIVRKEDIYILDFNQLNQERVVTYKYFKKEEKLFLAPISDSDEFYNTIQIK 392
QY 361 EYDEOPTYSCOLLFPKDEESTDEGLIGIHRFYESGIVFEYKDYFCISKWYLKVKRKP 420
DB 393 EYDEOPTYSCOLLFPKDEESTDEGLIGIHRFYESGIVFEYKDYFCISKWYLKVKRKP 452
QY 421 YNLKLGCNWQFIPKDEGTE 440
DB 453 YNLKLGCNWQFIPKDEGTE 472

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RESULT 4
US-08-704-159-46
; Sequence 46, Application US/08704159
; GENERAL INFORMATION:
; APPLICANT: Williams, James A.
; APPLICANT: Thalley, Bruce S.
; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
; TITLE OF INVENTION: Botulinum Neurotoxin
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Medlen & Carroll
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California
; COUNTRY: United States of America
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk

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; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/704,159
; FILING DATE:
; CLASSIFICATION: 424
; ATTORNEY/AGENT INFORMATION:
; NAME: Ingolia, Diane E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPHD-02304
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410
; TELEFAX: (415) 397-8338
; INFORMATION FOR SEQ ID NO: 46:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 472 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-704-159-46

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Query Match          99.6%; Score 2340; DB 1; Length 472;
Best Local Similarity 99.5%; Pred. No. 2.8e-205;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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QY 1 MANKYSEILNNILNRYKDNLDLGGYAKVEYDGVVGLNDKKNQKLTSSANSKIRV 60
DB 33 MFNKYSEILNNILNRYKDNLDLGGYAKVEYDGVVGLNDKKNQKLTSSANSKIRV 92
QY 61 TQNONIIFNSVFLDFSVFWIRPKYKNDGIONYIHNEYTIINCMKNNSGWKISIRGNRI 120
DB 93 TQNONIIFNSVFLDFSVFWIRPKYKNDGIONYIHNEYTIINCMKNNSGWKISIRGNRI 152
QY 121 IWTLDINGKTKSVFFEYFNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 180
DB 153 IWTLDINGKTKSVFFEYFNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 212
QY 181 REVANGEEIIFKLDGDDIRTOFIWMKYFSFNTLSQSNIEERYKIQSYSEYLDKDFWGNP 240
DB 213 REVANGEEIIFKLDGDDIRTOFIWMKYFSFNTLSQSNIEERYKIQSYSEYLDKDFWGNP 272
QY 241 LMVKEYYMFNAGNKNYSYIKLKDPSVGEILTRSKYNQNSKYINRYDLVIGKFIIRRS 300
DB 273 LMVKEYYMFNAGNKNYSYIKLKDPSVGEILTRSKYNQNSKYINRYDLVIGKFIIRRS 332
QY 301 NSQSINDDIVRKEDIYILDFNQLNQERVVTYKYFKKEEKLFLAPISDSDEFYNTIQIK 360
DB 333 NSQSINDDIVRKEDIYILDFNQLNQERVVTYKYFKKEEKLFLAPISDSDEFYNTIQIK 392
QY 361 EYDEOPTYSCOLLFPKDEESTDEGLIGIHRFYESGIVFEYKDYFCISKWYLKVKRKP 420
DB 393 EYDEOPTYSCOLLFPKDEESTDEGLIGIHRFYESGIVFEYKDYFCISKWYLKVKRKP 452
QY 421 YNLKLGCNWQFIPKDEGTE 440
DB 453 YNLKLGCNWQFIPKDEGTE 472

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```

RESULT 5
US-10-271-012-46
; Sequence 46, Application US/10271012
; GENERAL INFORMATION:
; APPLICANT: Williams, James A.
; APPLICANT: Thalley, Bruce S.
; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
; TITLE OF INVENTION: Botulinum Neurotoxin
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Medlen & Carroll
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California

```

COUNTRY: United States of America
ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/271,012
FILING DATE: 15-Oct-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/704,159
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPHD-02304
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
LENGTH: 472 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 46:
US-10-271-012-46

Query Match 99.6%; Score 2340; DB 26; Length 472;
Best Local Similarity 99.5%; Pred. No. 2.8e-205;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNLIILNRYKDNLDLSYGAKVEYDGVDELNDKNQFKLTSSANSKIRV 60
DB 33 MFKNYSEILNLIILNRYKDNLDLSYGAKVEYDGVDELNDKNQFKLTSSANSKIRV 92
QY 61 TQNQNTIFNSVFLDSVSWIRPKYKNDGIONYIHNEYTTINCMKNNSGKWSIRGNRI 120
DB 93 TQNQNTIFNSVFLDSVSWIRPKYKNDGIONYIHNEYTTINCMKNNSGKWSIRGNRI 152
QY 121 IWTLDINGKTSVFFEYNIREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 180
DB 153 IWTLDINGKTSVFFEYNIREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 212
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQNIERYKIQSYSEYLDKDFWGNP 240
DB 213 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQNIERYKIQSYSEYLDKDFWGNP 272
QY 241 LMNKEYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINRYDLIYIGKFTIRRS 300
DB 273 LMNKEYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINRYDLIYIGKFTIRRS 332
QY 301 NSQSINDDIVRKEDIYILDFNNOEWRYVYTKYFKKEEKLFLAPISDSDELYNTIOIK 360
DB 333 NSQSINDDIVRKEDIYILDFNNOEWRYVYTKYFKKEEKLFLAPISDSDELYNTIOIK 392
QY 361 EYDEQPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEEYKDYFCISKWYKVEKRP 420
DB 393 EYDEQPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEEYKDYFCISKWYKVEKRP 452
QY 421 YNLKGCNWOQIFPKDEGWE 440
DB 453 YNLKGCNWOQIFPKDEGWE 472

RESULT 6

US-08-123-975A-2
; Sequence 2, Application US/08123975A
; GENERAL INFORMATION:
; APPLICANT: Middlebrook, John L
; APPLICANT: Lapenotiere, Hugh F

APPLICANT: Clayton, Michael A
APPLICANT: Brown, Douglas R
TITLE OF INVENTION: POLYPEPTIDE FUSION PRODUCT AS VACCINE
TITLE OF INVENTION: AGAINST C. BOTULINUM
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: John F. Moran
STREET: Off. of Command Jdg. Adv.
CITY: Fredrick
STATE: Maryland
COUNTRY: USA
ZIP: 21702-5012
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/123,975A
FILING DATE: 21-SEP-1993
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glenna
REGISTRATION NUMBER: 32,535
REFERENCE/DOCKET NUMBER: mid.1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 619-2065
TELEFAX: (301) 619-7714
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 850 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
FRAGMENT TYPE: N-terminal
ORIGINAL SOURCE:
ORGANISM: heavy chain of serotyp B botulinum toxin
US-08-123-975A-2

Query Match 99.6%; Score 2340; DB 5; Length 850;
Best Local Similarity 99.5%; Pred. No. 6.6e-205;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNLIILNRYKDNLDLSYGAKVEYDGVDELNDKNQFKLTSSANSKIRV 60
DB 411 MFKNYSEILNLIILNRYKDNLDLSYGAKVEYDGVDELNDKNQFKLTSSANSKIRV 470
QY 61 TQNQNTIFNSVFLDSVSWIRPKYKNDGIONYIHNEYTTINCMKNNSGKWSIRGNRI 120
DB 471 TQNQNTIFNSVFLDSVSWIRPKYKNDGIONYIHNEYTTINCMKNNSGKWSIRGNRI 530
QY 121 IWTLDINGKTSVFFEYNIREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 180
DB 531 IWTLDINGKTSVFFEYNIREDISEYINRWFFVITNNLNNAKIYINGKLESNTDIKDI 590
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQNIERYKIQSYSEYLDKDFWGNP 240
DB 591 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQNIERYKIQSYSEYLDKDFWGNP 650
QY 241 LMNKEYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINRYDLIYIGKFTIRRS 300
DB 651 LMNKEYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINRYDLIYIGKFTIRRS 710
QY 301 NSQSINDDIVRKEDIYILDFNNOEWRYVYTKYFKKEEKLFLAPISDSDELYNTIOIK 360
DB 711 NSQSINDDIVRKEDIYILDFNNOEWRYVYTKYFKKEEKLFLAPISDSDELYNTIOIK 770
QY 361 EYDEQPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEEYKDYFCISKWYKVEKRP 420
DB 771 EYDEQPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEEYKDYFCISKWYKVEKRP 830

```
QY 421 YNLKLCNWFIPKDEGWE 440
Db 831 YNLKLCNWFIPKDEGWE 850

RESULT 7
US-09-831-050-4
; SEQUENCE 4, Application US/09831050
; GENERAL INFORMATION:
; APPLICANT: SHONE, Clifford Charles
; APPLICANT: SUTTON, John Mark
; APPLICANT: HALLIS, Bassam
; APPLICANT: SILMAN, Nigel
; TITLE OF INVENTION: Delivery of Superoxide Dismutase to Neuronal Cells
; FILE REFERENCE: 1581.0800000
; CURRENT APPLICATION NUMBER: US/09/831,050
; CURRENT FILING DATE: 1999-11-05
; PRIOR APPLICATION NUMBER: PCT/GB99/03699
; PRIOR FILING DATE: 1998-11-05
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 1070
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:construct
US-09-831-050-4

Query Match 99.6%; Score 2340; DB 22; Length 1070;
Best Local Similarity 99.5%; Pred. No. 9.3e-205;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNLIILNRYKDNLDLSCYGAKVEYDGVDELNDKNQKLTSSANSKIRV 60
Db 631 MFKNYSEILNLIILNRYKDNLDLSCYGAKVEYDGVDELNDKNQKLTSSANSKIRV 690
QY 61 TQNONIIFNSVFLDFSVPWIRIPKYKNDGIONYIHNEYTIINCMMKNSGWKISIRGNRI 120
Db 691 TQNONIIFNSVFLDFSVPWIRIPKYKNDGIONYIHNEYTIINCMMKNSGWKISIRGNRI 750
QY 121 IWTLDINGTKSVFFEYNTREDISEYINRWFFVTITNLNNAKIYINGKLESNTDIKDI 180
Db 751 IWTLDINGTKSVFFEYNTREDISEYINRWFFVTITNLNNAKIYINGKLESNTDIKDI 810
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 240
Db 811 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 870
QY 241 LMYNKEYMFNAGNKNYSIKLKKDSPVGEILTRSKYNQNSKYINRYDLYIGKFTIRKRS 300
Db 871 LMYNKEYMFNAGNKNYSIKLKKDSPVGEILTRSKYNQNSKYINRYDLYIGKFTIRKRS 930
QY 301 NSQSIINDIVRKEDYIYLDFFNLQNEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIK 360
Db 931 NSQSIINDIVRKEDYIYLDFFNLQNEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIK 990
QY 361 EYDEQPTYSQCLLFKKDEESTDEIGLIGHRFYESGIVFEYKDYFCISKWYLKVKRKP 420
Db 991 EYDEQPTYSQCLLFKKDEESTDEIGLIGHRFYESGIVFEYKDYFCISKWYLKVKRKP 1050

QY 421 YNLKLCNWFIPKDEGWE 440
Db 1051 YNLKLCNWFIPKDEGWE 1070

RESULT 8
US-09-831-050-7
; SEQUENCE 7, Application US/09831050
; GENERAL INFORMATION:
; APPLICANT: SHONE, Clifford Charles
; APPLICANT: SUTTON, John Mark
; APPLICANT: HALLIS, Bassam
; APPLICANT: SILMAN, Nigel
; TITLE OF INVENTION: Delivery of Superoxide Dismutase to Neuronal Cells
; FILE REFERENCE: 1581.0800000
; CURRENT APPLICATION NUMBER: US/09/831,050
; CURRENT FILING DATE: 1999-11-05
; PRIOR APPLICATION NUMBER: PCT/GB99/03699
; PRIOR FILING DATE: 1998-11-05
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 1095
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:construct
US-09-831-050-7

Query Match 99.6%; Score 2340; DB 22; Length 1095;
Best Local Similarity 99.5%; Pred. No. 9.6e-205;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNLIILNRYKDNLDLSCYGAKVEYDGVDELNDKNQKLTSSANSKIRV 60
Db 656 MFKNYSEILNLIILNRYKDNLDLSCYGAKVEYDGVDELNDKNQKLTSSANSKIRV 715
QY 61 TQNONIIFNSVFLDFSVPWIRIPKYKNDGIONYIHNEYTIINCMMKNSGWKISIRGNRI 120
Db 716 TQNONIIFNSVFLDFSVPWIRIPKYKNDGIONYIHNEYTIINCMMKNSGWKISIRGNRI 775
QY 121 IWTLDINGTKSVFFEYNTREDISEYINRWFFVTITNLNNAKIYINGKLESNTDIKDI 180
Db 776 IWTLDINGTKSVFFEYNTREDISEYINRWFFVTITNLNNAKIYINGKLESNTDIKDI 835
QY 181 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 240
Db 836 REVIANGEIIFKLDGIDRTQFIWMKYFSIFNTELSQSNIEERYKIQSYSEYKDFWGNP 895
QY 241 LMYNKEYMFNAGNKNYSIKLKKDSPVGEILTRSKYNQNSKYINRYDLYIGKFTIRKRS 300
Db 896 LMYNKEYMFNAGNKNYSIKLKKDSPVGEILTRSKYNQNSKYINRYDLYIGKFTIRKRS 955
QY 301 NSQSIINDIVRKEDYIYLDFFNLQNEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIK 360
Db 956 NSQSIINDIVRKEDYIYLDFFNLQNEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIK 1015
QY 361 EYDEQPTYSQCLLFKKDEESTDEIGLIGHRFYESGIVFEYKDYFCISKWYLKVKRKP 420
Db 1016 EYDEQPTYSQCLLFKKDEESTDEIGLIGHRFYESGIVFEYKDYFCISKWYLKVKRKP 1075

QY 421 YNLKLCNWFIPKDEGWE 440
Db 1076 YNLKLCNWFIPKDEGWE 1095

RESULT 9
PCT-US97-15394-42
; SEQUENCE 42, Application PC/TUS9715394
; GENERAL INFORMATION:
; APPLICANT: Williams, James A.
; APPLICANT: Thalley, Bruce S.
; TITLE OF INVENTION: Multivalent Vaccine For Clostridium
; TITLE OF INVENTION: Botulinum Neurotoxin
; NUMBER OF SEQUENCES: 82
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Medlen & Carroll
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California
; COUNTRY: United States of America
; ZIP: 94104
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
```

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US97/15394
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPND-02304
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 42:
SEQUENCE CHARACTERISTICS:
LENGTH: 1291 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US97-15394-42

Query Match 99.6%; Score 2340; DB 1; Length 1291;
Best Local Similarity 99.5%; Pred. No. 1.2e-204;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNNILNRYKDNLDLSYGAKVEYDGVDELNDKNQKLTSSANSKIRV 60
DB 852 MFKNYSEILNNILNRYKDNLDLSYGAKVEYDGVDELNDKNQKLTSSANSKIRV 911
QY 61 TQONQIFNSVFLDFSFWIRPKYKNDGIONYIHNEYTIINCMMKNSGKISIRGNRI 120
DB 912 TQONQIFNSVFLDFSFWIRPKYKNDGIONYIHNEYTIINCMMKNSGKISIRGNRI 971
QY 121 IWTLDINGKTKSVFEYNTREDISEYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 180
DB 972 IWTLDINGKTKSVFEYNTREDISEYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 1031
QY 181 REVIANGEIIFKLDGIDRTQFTWKKYFISFNTLSQSIERYKIQSYSEYKDFWGNP 240
DB 1032 REVIANGEIIFKLDGIDRTQFTWKKYFISFNTLSQSIERYKIQSYSEYKDFWGNP 1091
QY 241 LMYNKEYMNFAGNKNYSYIKLKDSPVGEILTRSKYNQNSKYINRYDLYIGSKFIIRKS 300
DB 1092 LMYNKEYMNFAGNKNYSYIKLKDSPVGEILTRSKYNQNSKYINRYDLYIGSKFIIRKS 1151
QY 301 NSQSIINDIYRKEDIYLDFFNLNQEWRYTYKYFKKEEKLFLAPISDSDELYNTIOIK 360
DB 1152 NSQSIINDIYRKEDIYLDFFNLNQEWRYTYKYFKKEEKLFLAPISDSDELYNTIOIK 1211
QY 361 EYDEQPTYSCQLLFKKDESTDIGLIGHRFYVESGIVPEEYKDYFCISKWYLKEVKRRP 420
DB 1212 EYDEQPTYSCQLLFKKDESTDIGLIGHRFYVESGIVPEEYKDYFCISKWYLKEVKRRP 1271
QY 421 YNLKGCNWOQFIPKDEGWE 440
DB 1272 YNLKGCNWOQFIPKDEGWE 1291

RESULT 10

US-08-704-159-42

Sequence 42, Application US/08704159

GENERAL INFORMATION:

APPLICANT: Williams, James A.

APPLICANT: Thalley, Bruce S.

TITLE OF INVENTION: Multivalent Vaccine For Clostridium

TITLE OF INVENTION: Botulinum Neurotoxin

NUMBER OF SEQUENCES: 82

CORRESPONDENCE ADDRESS:

ADDRESSEE: Medlen & Carroll

STREET: 220 Montgomery Street, Suite 2200

CITY: San Francisco

STATE: California

COUNTRY: United States of America

ZIP: 94104
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/704,159
FILING DATE:
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,027
REFERENCE/DOCKET NUMBER: OPND-02304
TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 42:
SEQUENCE CHARACTERISTICS:
LENGTH: 1291 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-704-159-42

Query Match 99.6%; Score 2340; DB 1; Length 1291;
Best Local Similarity 99.5%; Pred. No. 1.2e-204;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNNILNRYKDNLDLSYGAKVEYDGVDELNDKNQKLTSSANSKIRV 60
DB 852 MFKNYSEILNNILNRYKDNLDLSYGAKVEYDGVDELNDKNQKLTSSANSKIRV 911
QY 61 TQONQIFNSVFLDFSFWIRPKYKNDGIONYIHNEYTIINCMMKNSGKISIRGNRI 120
DB 912 TQONQIFNSVFLDFSFWIRPKYKNDGIONYIHNEYTIINCMMKNSGKISIRGNRI 971
QY 121 IWTLDINGKTKSVFEYNTREDISEYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 180
DB 972 IWTLDINGKTKSVFEYNTREDISEYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 1031
QY 181 REVIANGEIIFKLDGIDRTQFTWKKYFISFNTLSQSIERYKIQSYSEYKDFWGNP 240
DB 1032 REVIANGEIIFKLDGIDRTQFTWKKYFISFNTLSQSIERYKIQSYSEYKDFWGNP 1091
QY 241 LMYNKEYMNFAGNKNYSYIKLKDSPVGEILTRSKYNQNSKYINRYDLYIGSKFIIRKS 300
DB 1092 LMYNKEYMNFAGNKNYSYIKLKDSPVGEILTRSKYNQNSKYINRYDLYIGSKFIIRKS 1151
QY 301 NSQSIINDIYRKEDIYLDFFNLNQEWRYTYKYFKKEEKLFLAPISDSDELYNTIOIK 360
DB 1152 NSQSIINDIYRKEDIYLDFFNLNQEWRYTYKYFKKEEKLFLAPISDSDELYNTIOIK 1211
QY 361 EYDEQPTYSCQLLFKKDESTDIGLIGHRFYVESGIVPEEYKDYFCISKWYLKEVKRRP 420
DB 1212 EYDEQPTYSCQLLFKKDESTDIGLIGHRFYVESGIVPEEYKDYFCISKWYLKEVKRRP 1271
QY 421 YNLKGCNWOQFIPKDEGWE 440
DB 1272 YNLKGCNWOQFIPKDEGWE 1291

RESULT 11

US-10-271-012-42

Sequence 42, Application US/10271012

GENERAL INFORMATION:

APPLICANT: Williams, James A.

APPLICANT: Thalley, Bruce S.

TITLE OF INVENTION: Multivalent Vaccine For Clostridium

NUMBER OF SEQUENCES: 82

CORRESPONDENCE ADDRESS:

ADDRESSEE: Medlen & Carroll

```
; STREET: 220 Montgomery Street, Suite 2200
; CITY: San Francisco
; STATE: California
; COUNTRY: United States of America
; ZIP: 94104
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/271,012
; FILING DATE: 15-Oct-2002
; CLASSIFICATION: <Unknown>
;
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/704,159
; FILING DATE: <Unknown>
;
; ATTORNEY/AGENT INFORMATION:
; NAME: Ingolia, Diane E.
; REGISTRATION NUMBER: 40,027
; REFERENCE/DOCKET NUMBER: OPHD-02304
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 705-8410
; TELEFAX: (415) 397-8338
;
; INFORMATION FOR SEQ ID NO: 42:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1291 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 42:
US-10-271-012-42

Query Match          99.6%; Score 2340; DB 26; Length 1291;
Best Local Similarity 99.5%; Pred. No. 1.2e-204;
Matches 438; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MANKYSEILNLIILRYKDNLDLGSYGAKVEYDVGVELNDKNQFKLTSSANSKIRV 60
DB 852 MFNKYSEILNLIILRYKDNLDLGSYGAKVEYDVGVELNDKNQFKLTSSANSKIRV 911
QY 61 TQNKIIFNSVFLDFSFWIRPKYKNDGIQNYIHNEYTIINCMKNNSGKISIRGNRI 120
DB 912 TQNKIIFNSVFLDFSFWIRPKYKNDGIQNYIHNEYTIINCMKNNSGKISIRGNRI 971
QY 121 IWTLDINGTKTSVFFPYNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIDKI 180
DB 972 IWTLDINGTKTSVFFPYNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIDKI 1031
QY 181 REVIANGEIIFKLDGDIRTOFTWVKYFSIFNTELSQSIIEERYKIQSYEYLKDFWGNP 240
DB 1032 REVIANGEIIFKLDGDIRTOFTWVKYFSIFNTELSQSIIEERYKIQSYEYLKDFWGNP 1091
QY 241 LMVNYEYMFNAGNKNYSYIKLKDSPVGEILTRSKYQNQSKYINRYDLVIGKFIIRKKS 300
DB 1092 LMVNYEYMFNAGNKNYSYIKLKDSPVGEILTRSKYQNQSKYINRYDLVIGKFIIRKKS 1151
QY 301 NSQINDDIVRKEDYIYLDFFNLQENRWVYTYKYFKKEEKLFLAPISDSDELYNTIQIK 360
DB 1152 NSQINDDIVRKEDYIYLDFFNLQENRWVYTYKYFKKEEKLFLAPISDSDELYNTIQIK 1211
QY 361 EYDEQPTYSCQLFKKDEESTDEIGLIGHRFYSGIVFEYKDYFCISKWYLKVEYKRP 420
DB 1212 EYDEQPTYSCQLFKKDEESTDEIGLIGHRFYSGIVFEYKDYFCISKWYLKVEYKRP 1271
QY 421 YNLKLGCNWQIPKDEGWT 440
DB 1272 YNLKLGCNWQIPKDEGWT 1291
```

RESULT 12

US-08-123-975A-5

; Sequence 5, Application US/08123975A

```
; GENERAL INFORMATION:
; APPLICANT: Middlebrook, John L
; APPLICANT: Lapenotiere, Hugh F
; APPLICANT: Clayton, Michael A
; APPLICANT: Brown, Douglas R
; TITLE OF INVENTION: POLYPEPTIDE FUSION PRODUCT AS VACCINE
; AGAINST C. BOTULINUM
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: John F. Moran
; STREET: Off. Of Command Jdg. Adv.
; CITY: Fredrick
; STATE: Maryland
; COUNTRY: USA
; ZIP: 21702-5012
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/123,975A
; FILING DATE: 21-Sep-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Hendricks, Glenna
; REGISTRATION NUMBER: 32,535
; REFERENCE/DOCKET NUMBER: mid.1
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 619-2065
; TELEFAX: (301) 619-7714
;
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 439 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; HYPOTHEetical: NO
; ANTI-SENSE: NO
; FRAGMENT TYPE: N-terminal
; ORIGINAL SOURCE:
; ORGANISM: Clostridium botulinum toxin
;
; US-08-123-975A-5
;
Query Match          99.4%; Score 2337; DB 5; Length 439;
Best Local Similarity 99.8%; Pred. No. 4.7e-205;
Matches 437; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 3 NKYNSEILNLIILRYKDNLDLGSYGAKVEYDVGVELNDKNQFKLTSSANSKIRV 62
DB 2 NKYNSEILNLIILRYKDNLDLGSYGAKVEYDVGVELNDKNQFKLTSSANSKIRV 61
QY 63 NQNTIFNSVFLDFSFWIRPKYKNDGIQNYIHNEYTIINCMKNNSGKISIRGNRI 122
DB 62 NQNTIFNSVFLDFSFWIRPKYKNDGIQNYIHNEYTIINCMKNNSGKISIRGNRI 121
QY 123 TLIDINGTKTSVFFPYNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIDIRE 182
DB 122 TLIDINGTKTSVFFPYNIREDISYINRWFFVTITNNLNNAKIYINGKLESNTDIDIRE 181
QY 183 VIANGEIIFKLDGDIRTOFTWVKYFSIFNTELSQSIIEERYKIQSYEYLKDFWGNPLM 242
DB 182 VIANGEIIFKLDGDIRTOFTWVKYFSIFNTELSQSIIEERYKIQSYEYLKDFWGNPLM 241
QY 243 YNKEYYMFNAGNKNYSYIKLKDSPVGEILTRSKYQNQSKYINRYDLVIGKFIIRKKS 302
DB 242 YNKEYYMFNAGNKNYSYIKLKDSPVGEILTRSKYQNQSKYINRYDLVIGKFIIRKKS 301
QY 303 QSINDDIVRKEDYIYLDFFNLQENRWVYTYKYFKKEEKLFLAPISDSDELYNTIQIK 362
DB 302 QSINDDIVRKEDYIYLDFFNLQENRWVYTYKYFKKEEKLFLAPISDSDELYNTIQIK 361
```

QY 363 DEOPTYSCOLLFKKDEESTDEIGLGIHRFYSVGVFEYKDYFCISKWYLKEVKKRPYN 422
 Db DEOPTYSCOLLFKKDEESTDEIGLGIHRFYSVGVFEYKDYFCISKWYLKEVKKRPYN 421
 QY 423 LKLGCNWQFIPKDEGWTE 440
 Db 422 LKLGCNWQFIPKDEGWTE 439

RESULT 13
 US-09-611-419A-40
 ; Sequence 40, Application US/09611419A
 ; GENERAL INFORMATION:
 ; APPLICANT: Smith, Leonard A.
 ; APPLICANT: Byrne, Michael P.
 ; APPLICANT: Middlebrook, John L.
 ; APPLICANT: Lapenotiere, Hugh
 ; APPLICANT: Clayton, Michael A.
 ; APPLICANT: Brown, Douglas R.
 ; TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
 ; FILE REFERENCE: A33626 067252.0105
 ; CURRENT APPLICATION NUMBER: US/09/611,419A
 ; CURRENT FILING DATE: 2000-07-06
 ; PRIOR APPLICATION NUMBER: PCT/US00/12890
 ; PRIOR FILING DATE: 2000-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,865
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,866
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,867
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,868
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,869
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/146,192
 ; PRIOR FILING DATE: 1999-07-29
 ; NUMBER OF SEQ ID NOS: 42
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 40
 ; LENGTH: 436
 ; TYPE: PRT
 ; ORGANISM: Clostridium botulinum
 US-09-611-419A-40

Query Match 97.2%; Score 2283.5; DB 20; Length 436;
 Best Local Similarity 99.1%; Pred. No. 3.8e-200;
 Matches 434; Conservative 0; Mismatches 1; Indels 3; Gaps 3;
 QY 3 NKYNSEILNNILNRYKDNLDLSCYGAKVEYDGVVLDNKNQFKLTSSANSKIRVTO 62
 Db 2 NKYNSEILNNILNRYKDNLDLSCYGAKVEYDGVVLDNKNQFKLTSSANSKIRVTO 61
 QY 63 NONTIFNSVFLDFSVSWIRIPKYKNDGTONYIHNEYTIINCMKNNSGWKISIRGNRI 122
 Db 62 NONTIFNSVFLDFSVSWIRIPKYKNDGTONYIHNEYTIINCMKNNSGWKISIRGNRI 120
 QY 123 TLIDINGKTSVFEYINRDISEYINRWFVTITNNLNAKIYINGKLESNTDIDKDI 182
 Db 121 TLIDINGKTSVFEYINRDISEYINRWFVTITNNLNAKIYINGKLESNTDIDKDI 180
 QY 183 VIANGEIIFKLDGIDRTQFTWMKYFSIFNTELSQSNIEBRYKIQSYSEYKDFWGNPLM 242
 Db 181 VIANGEIIFKLDGIDRTQFTWMKYFSIFNTELSQSNIEBRYKIQSYSEYKDFWGNPLM 240
 QY 243 YNKEYYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINVRDLYIGKEFTIRKKS 302
 Db 241 YNKEYYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINVRDLYIGKEFTIRKKS 300
 QY 303 QSINDDIVRKEDYIYLDFFNLQEWRYVYTKYFKKEEKLFLAPISDSDELYNTIQIKEY 362
 Db 301 QSINDDIVRKEDYIYLDFFNLQEWRYVYTKYFKKEEKLFLAPISDSDELYNTIQIKEY 358

QY 363 DEOPTYSCOLLFKKDEESTDEIGLGIHRFYSVGVFEYKDYFCISKWYLKEVKKRPYN 422
 Db 359 DEOPTYSCOLLFKKDEESTDEIGLGIHRFYSVGVFEYKDYFCISKWYLKEVKKRPYN 418
 QY 423 LKLGCNWQFIPKDEGWTE 440
 Db 419 LKLGCNWQFIPKDEGWTE 436

RESULT 14
 US-09-611-419A-42
 ; Sequence 42, Application US/09611419A
 ; GENERAL INFORMATION:
 ; APPLICANT: Smith, Leonard A.
 ; APPLICANT: Byrne, Michael P.
 ; APPLICANT: Middlebrook, John L.
 ; APPLICANT: Lapenotiere, Hugh
 ; APPLICANT: Clayton, Michael A.
 ; APPLICANT: Brown, Douglas R.
 ; TITLE OF INVENTION: RECOMBINANT VACCINE AGAINST BOTULINUM
 ; FILE REFERENCE: A33626 067252.0105
 ; CURRENT APPLICATION NUMBER: US/09/611,419A
 ; CURRENT FILING DATE: 2000-07-06
 ; PRIOR APPLICATION NUMBER: PCT/US00/12890
 ; PRIOR FILING DATE: 2000-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,865
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,866
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,867
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,868
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/133,869
 ; PRIOR FILING DATE: 1999-05-12
 ; PRIOR APPLICATION NUMBER: 60/146,192
 ; PRIOR FILING DATE: 1999-07-29
 ; NUMBER OF SEQ ID NOS: 42
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 42
 ; LENGTH: 843
 ; TYPE: PRT
 ; ORGANISM: Clostridium botulinum
 US-09-611-419A-42

Query Match 94.8%; Score 2227.5; DB 20; Length 843;
 Best Local Similarity 98.0%; Pred. No. 1.4e-194;
 Matches 431; Conservative 0; Mismatches 2; Indels 7; Gaps 7;
 QY 1 MANKYSEILNNILNRYKDNLDLSCYGAKVEYDGVVLDNKNQFKLTSSANSKIRV 60
 Db 411 MANKYSEILNNILNRYKDNLDLSCYGAKVEYDGVVLDNKNQFKLTSSANSKIRV 469
 QY 61 TQNONIFNSVFLDFSVSWIRIPKYKNDGTONYIHNEYTIINCMKNNSGWKISIRGNRI 120
 Db 470 TQNONIFNSVFLDFSVSWIRIPKYKNDGTONYIHNEYTIINCMKNNSGWKISIRGNRI 528
 QY 121 IWLIDINGKTSVFEYINRDISEYINRWFVTITNNLNAKIYINGKLESNTDIDKDI 180
 Db 529 IWLIDINGKTSVFEYINRDISEYINRWFVTITNNLNAKIYINGKLESNTDIDKDI 588
 QY 181 REVIANGEIIFKLDGIDRTQFTWMKYFSIFNTELSQSNIEBRYKIQSYSEYKDFWGNP 240
 Db 589 REVIANGEIIFKLDGIDRTQFTWMKYFSIFNTELSQSNIEBRYKIQSYSEYKDFWGNP 648
 QY 241 LMYNKEYYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINVRDLYIGKEFTIRKKS 300
 Db 649 LMYNKEYYMFNAGKNNSYIKLKKDSPVGEILTRSKYNQNSKYINVRDLYIGKEFTIRKKS 708
 QY 301 NSQSINDDIVRKEDYIYLDFFNLQEWRYVYTKYFKKEEKLFLAPISDSDELYNTIQI 360

Db 709 NSQSINDIVRKEDYIYLDFFNQLQWRVYTYKFKKKEE-LFLAPISDSDEFYNTIQIK 767
QY 361 EYDEQPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEYKYDYFCISKWYLVKVRKP 420
Db 768 EYDEQPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEE-KD-FCIS-WYL-EVKRKP 823
QY 421 YNLKLGNCNQFIPKDEGWTE 440
Db 824 YNLKLGNCNQFIPKDEGWTE 843

RESULT 15
PCT-US97-15394-44
: Sequence 44. Application PC/TUS9715394
: GENERAL INFORMATION:
: APPLICANT: Williams, James A.
: APPLICANT: Thalley, Bruce S.
: TITLE OF INVENTION: Multivalent Vaccine For Clostridium
: TITLE OF INVENTION: Botulinum Neurotoxin
: NUMBER OF SEQUENCES: 82
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Medlen & Carroll
: STREET: 220 Montgomery Street, Suite 2200
: CITY: San Francisco
: STATE: California
: COUNTRY: United States of America
: ZIP: 94104
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patent In Release #1.0, Version #1.30
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: PCT/US97/15394
: FILING DATE:
: CLASSIFICATION:
: ATTORNEY/AGENT INFORMATION:
: NAME: Ingolia, Diane E.
: REGISTRATION NUMBER: 40,027
: REFERENCE/DOCKET NUMBER: OPHD-02304
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 705-8410
: TELEFAX: (415) 397-8338
: INFORMATION FOR SEQ ID NO: 44:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 472 amino acids
: TYPE: amino acid
: TOPOLOGY: linear
: MOLECULE TYPE: protein
: PCT-US97-15394-44

Query Match 89.4%; Score 2102; DB 1; Length 472;
Best Local Similarity 88.6%; Pred. No. 1.9e-183;
Matches 390; Conservative 26; Mismatches 24; Indels 0; Gaps 0;

QY 1 MANKYSEILNNTILRLRYKDNLDLDSGAKVEYDGVDELNDKNQFKLTSSANSKIRV 60
Db 33 MFKNYSEILNNTILRLRYDNDLDSGAKVEYDGVKLDNDKNQFKLTSSADSKIRV 92
QY 61 TQNONIIFNSVFLDFSVMFIRPKYKNDGIONYIHNEYTIINCMMKNSGWKISIRGNRI 120
Db 93 TQNONIIFNSVFLDFSVMFIRPKYKNDGIONYIHNEYTIINCMMKNSGWKISIRGNRI 152
QY 121 IWLIDINGTKSVFFFEYNTRDISYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 180
Db 153 IWLIDINGTKSVFFFEYNTRDISYINRWFFVTITNNLNNAKIYINGKLESNTDIKDI 212
QY 181 REVIANGEIIFKLDGIDRQFIMWKYFSIFNTLSQSNIEERYKIQSYEYKDFWGNP 240
Db 213 GEVIVNGEITFKLDGVDRTQFIMWKYFSIFNTLSQSNIEERYKIQSYEYKDFWGNP 272
QY 241 LMNKEYMFMNAGKNKSYIKLKDSPVGEILIRSKYNQNSKYNIRDLIYIGKFIIRKS 300

Db 273 LMTNKYYMFMNAGKNKSYIKLVKDSVGEILIRSKYNQNSKYNIRDLIYIGKFIIRRES 332
QY 301 NSQSINDIVRKEDYIYLDFFNQLQWRVYTYKFKKKEEKLFLAPISDSDELXNTIQIK 360
Db 333 NSQSINDIVRKEDYIHLDLVLHHEWRVYAYKFKQEKEKFLSLIISDSNEFYKTIIEIK 392
QY 361 EYDEOPTYSQCLLFKKDEESTDEIGLIGHREYSGIVFEYKYDYFCISKWYLVKVRKP 420
Db 393 EYDEQPTYSQCLLFKKDEESTDDIGLIGHREYSGVLRKKYKDYFCISKWYLVKVRKP 452
QY 421 YNLKLGNCNQFIPKDEGWTE 440
Db 453 YKSNLGCNQFIPKDEGWTE 472

Search completed: November 1, 2002, 08:22:56
Job time : 294 secs

GenCore version 5.1.3
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OM protein - protein search, using sw model

Run on: November 1, 2002, 08:15:33 ; Search time 12 Seconds
(without alignments)
66.157 Million cell updates/sec

Title: US-09-910-186a-8
Perfect score: 2350
Sequence: 1 MANKYNSILNIIILRYK.....YNLKGCNWFIPKDGWTE 440

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 7643 seqs, 1804274 residues

Total number of hits satisfying chosen parameters: 7643

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Pending_Patents_AA_Nev.*

- 1: /cgn2.6/ptodata/1/paa/PCT_NEW_COMB.pep.*
- 2: /cgn2.6/ptodata/1/paa/US06_NEW_COMB.pep.*
- 3: /cgn2.6/ptodata/1/paa/US07_NEW_COMB.pep.*
- 4: /cgn2.6/ptodata/1/paa/US08_NEW_COMB.pep.*
- 5: /cgn2.6/ptodata/1/paa/US09_NEW_COMB.pep.*
- 6: /cgn2.6/ptodata/1/paa/US10_NEW_COMB.pep.*
- 7: /cgn2.6/ptodata/1/paa/US60_NEW_COMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	124	5.3	878	6	US-10-092-411A-4378
2	117	5.0	428	6	US-10-092-411A-2942
3	115.5	4.9	912	6	US-10-092-411A-2993
4	115.5	4.9	3696	6	US-10-092-411A-5080
5	114.5	4.9	608	6	US-10-092-411A-4751
6	111	4.7	321	6	US-10-092-411A-2890
7	110	4.7	454	6	US-10-085-198-22
8	109.5	4.7	518	6	US-10-092-411A-4348
9	109	4.6	384	6	US-10-092-411A-4669
10	108.5	4.6	564	6	US-10-092-411A-3930
11	108	4.6	406	6	US-10-092-411A-3544
12	107.5	4.6	331	6	US-10-092-411A-3626
13	104.5	4.4	406	6	US-10-143-087A-309
14	103.5	4.4	703	6	US-10-092-411A-3015
15	102.5	4.4	570	6	US-10-092-411A-2972
16	102.5	4.4	1162	6	US-10-092-411A-4008
17	102.5	4.4	1177	6	US-10-092-411A-5106
18	102	4.3	956	6	US-10-092-411A-4452
19	102	4.3	590	6	US-10-083-198-154
20	101	4.3	670	6	US-10-092-411A-2940
21	101	4.3	10182	6	US-10-092-411A-3159
22	100	4.3	460	6	US-10-092-411A-5322
23	100	4.3	485	6	US-10-092-411A-4294
24	100	4.3	876	6	US-10-092-411A-3943
25	99.5	4.2	870	6	US-10-092-411A-4959
26	99.5	4.2	1211	6	US-10-092-411A-4820

27	98.5	4.2	425	6	US-10-092-411A-5654	Sequence 5654, Ap
28	98	4.2	659	6	US-10-092-411A-5537	Sequence 5537, Ap
29	97.5	4.1	405	6	US-10-092-411A-5259	Sequence 5259, Ap
30	96.5	4.1	312	6	US-10-092-411A-3465	Sequence 3465, Ap
31	96.5	4.1	471	6	US-10-092-411A-4125	Sequence 4125, Ap
32	96.5	4.1	509	6	US-10-092-411A-2996	Sequence 2996, Ap
33	96.5	4.1	1010	6	US-10-092-411A-5178	Sequence 5178, Ap
34	96	4.1	502	6	US-10-092-411A-4511	Sequence 4511, Ap
35	96	4.1	695	6	US-10-092-411A-4341	Sequence 4341, Ap
36	96	4.1	804	6	US-10-092-411A-5218	Sequence 5218, Ap
37	96	4.1	901	6	US-10-092-411A-5351	Sequence 5351, Ap
38	95.5	4.1	473	6	US-10-092-411A-4773	Sequence 4773, Ap
39	95.5	4.1	591	6	US-10-092-411A-3248	Sequence 3248, Ap
40	95.5	4.1	1151	6	US-10-092-411A-3242	Sequence 3242, Ap
41	94	4.0	675	6	US-10-092-411A-4547	Sequence 4547, Ap
42	94	4.0	727	6	US-10-092-411A-4067	Sequence 4067, Ap
43	92.5	3.9	280	6	US-10-092-411A-5506	Sequence 5506, Ap
44	92.5	3.9	691	6	US-10-092-411A-4675	Sequence 4675, Ap
45	92.5	3.9	906	6	US-10-092-411A-3218	Sequence 3218, Ap

ALIGNMENTS

RESULT 1

US-10-092-411A-4378
; Sequence 4378, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092,411A
; CURRENT FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 09/134,001
; PRIOR FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/064,964
; PRIOR FILING DATE: 1997-11-08
; PRIOR APPLICATION NUMBER: US 60/055,779
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 4378
; LENGTH: 878
; TYPE: PRY
; ORGANISM: Staphylococcus epidermidis
; US-10-092-411A-4378

Query Match	5.3%	Score 124;	DB 6;	Length 878;
Best Local Similarity	19.9%	Pred. No. 0.73;		
Matches	95;	Conservative	86;	Mismatches 197; Indels 100; Gaps 17;
QY	3	NKYNSEILNIIILRYKKNLIDLS	-----	28
Db	255	NKPPSHSDIKIKSMGYLDNLSLSSNLNLTIGGRTGKSTLIELIAYLDIAPTSQNT	314	
QY	29	-----GYGAKVEYDGVDELNDKQKLTASSANSKIRVTQNONIIFNSVFLDFS	76	
Db	315	NTSFENICKNLGIGKVELIVTSHAQYQKFKIKRYNEDPIIKDIDNNVSNYTVKDL	374	
QY	77	VSWIRIPKYKNDIQNYTHNEYTIINCKM-----NNSGKKISIRGNRIIWLIDNG	129	
Db	375	PN-----IEVYSQNEIIDLATNENAKLINILNRLFDKDRSDNKKKEIKTN-----LHS	422	
QY	130	KTKSVFEXNIREDISYINRWFFVTITNNLNN-AKIYINGKLESNTDIDKIREVIANGE	188	
Db	423	NSKSLKAKEDLENLEKINGQ--LPALKKELKHLFNLGKLEVGKISREEQYIQNTK	480	
QY	189	IIFKLDGDIRTQFI-----WMKYFSIPT--EYSQSNIERYKIQSYSEYKDFW	237	
Db	481	QIIE-ONDISIITNIIILPFENENYQKIKHVEIFDSIKNTDNNHKKLKEIKSMFTDLKDTT	539	
QY	238	GNPLMKYEMFNAGKNYSYKDKD-SPVGEILTRSK-----YNQNSKYINYRDIYI	290	

Db 1 LVSSIDTKRRIIMKKSVRLYNMIEYCENNRNFKLNDLMESEINSRSTALRDIKEIEALGV 60
QY 84 PKYKNDGIONYTHNYTTINCMKNNSGKHSIRGNR---IITWILDINGTKSVFFPEYNI 140
Db 61 PLYSNP-----RNGYTTIG---NRQKRIATDEELKALVFTLUSSISVSNLFF----- 108
QY 141 REDISYINRWFFVITNNLNNAKIYINGKLESNTDIKDIREVIANGELIIFKLDGIDIRT 200
Db 109 QTEYQELAKLY-----NNSNK-----KELINQYNDLFOYFNE-DKY 144
QY 201 QFIWMKYFIFNTELSQSNIBERYKIQSYSE-YLKD-FWGNPLMY-NKEYFMFVAGNKS 257
Db 145 QF---KSYKLFN-ETIRLAIENKSFETCYSONYKEQYKGIGIMYKHNQWYFVYVANTESK 200
QY 258 YTKKKSDSPVGSILTRSKYNSKYNIRYLDYIGKFIIR-----KSNOSINDDI 309
Db 201 LVNLLNISAKILEYEMGE-TQBCNDITQWNF---QOFVKNETAIDILIRSNVWGLN-I 254
QY 310 VRKEDIYIDFNLAQWVRVYKYKKEEKLFLA-----PISDSDELYNTIQI 359
Db 255 LK--GYLWSDYMIENIDETLYLFSKVNAKDIDFTAKLIVTGVNVKVPNSLKNVAV 312
QY 360 K 360
Db 313 E 313

RESULT 7
US-10-085-198-22
; Sequence 22, Application US/10085198
; GENERAL INFORMATION:
; APPLICANT: Alsobrook et al.
; TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
; FILE REFERENCE: 21402-279
; CURRENT APPLICATION NUMBER: US/10/085.198
; PRIOR FILING DATE: 2002-02-25
; PRIOR FILING DATE: 2001-02-25
; PRIOR FILING DATE: 2001-02-25
; PRIOR FILING DATE: 2001-03-16
; PRIOR FILING DATE: 2001-08-13
; PRIOR FILING DATE: 2001-08-13
; PRIOR FILING DATE: 2001-08-16
; PRIOR FILING DATE: 2001-08-16
; PRIOR FILING DATE: 2001-02-27
; PRIOR FILING DATE: 2001-02-27
; PRIOR FILING DATE: 2001-03-20
; PRIOR FILING DATE: 2001-03-20
; PRIOR FILING DATE: 2001-04-21
; PRIOR FILING DATE: 2001-04-21
; PRIOR FILING DATE: 2001-06-20
; PRIOR FILING DATE: 2001-06-20
; PRIOR FILING DATE: 2001-08-29
; PRIOR FILING DATE: 2001-08-29
; PRIOR FILING DATE: 2001-02-28
; NUMBER OF SEQ ID NOS: 653
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 22
; LENGTH: 4544
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-085-198-22

Query Match 4.7%; Score 110; DB 6; Length 4544;
Best Local Similarity 26.4%; Pred. No. 23;
Matches 51; Conservative 39; Mismatches 61; Indels 42; Gaps 11;
QY 213 TELSOSNIBER-----RKIKSYSEYKLDKFWGNP-----LMYNKEYFMFNAGNKNYSIKLKKD 264
Db 598 TAVSAIDIDELELVKIKIISGNE-LGFFYLPDPSGVQLKKRS--LTNSGIKNGNFAIRIT 654

QY 265 SPVGILTRSKY-----NONGKIYINRDLTI-----GKFIIRKKSQSINDDIVRK 312
Db 655 ATDGNLADPMSINISVHLGVKSSFSFSCRETRVAQKLAELLIKAKANGK-----LNL 708
QY 313 EDYIYLDNFNLAQWVRVYKYKKEEKLFLAPISDSDEL---YNTIQIKEYDEQPTYS 369
Db 709 EDG-FLDEYSINRQ-----PYF-----DKSPSDVAVKEDLPVGANILKIKAYDADSGFN 758
QY 370 COLLEFKKDEESTD 382
Db 759 GKVLFTISGNTD 771
RESULT 8
US-10-092-411A-4348
; Sequence 4348, Application US/10092411A
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC
; FILE REFERENCE: 032796-101
; CURRENT APPLICATION NUMBER: US/10/092.411A
; CURRENT FILING DATE: 2002-03-07
; PRIOR FILING DATE: 1998-08-13
; PRIOR FILING DATE: 1997-11-08
; PRIOR FILING DATE: 1997-08-14
; NUMBER OF SEQ ID NOS: 5676
; SEQ ID NO 4348
; LENGTH: 518
; TYPE: PRT
; ORGANISM: Staphylococcus epidermidis
US-10-092-411A-4348
Query Match 4.7%; Score 109.5; DB 6; Length 518;
Best Local Similarity 18.7%; Pred. No. 2.4;
Matches 98; Conservative 66; Mismatches 165; Indels 195; Gaps 23;
QY 7 SEILNNILNRYKDNLDLSGCGAKVEYVDGVELNDKNOFKLTSSANSKIRVTONQNI 66
Db 61 SENIQTLSNIGCKDDEVILWYQYFTDVKIAPTITYDD---LISELGNVETRKEQNGV 117
QY 67 IFNSVFLDFSVSFWIRIPKYNKDGIQNIHNEYIINCMKNNSGKHSIRGNRIITWLD 126
Db 118 -----LRLYNNQQTFTCYLKNANEHYVDRAEFV----- 147
QY 127 INGTKSVFFENIREDISYINRWFFVTIINLNNAKIYI-----NGKLESNTDIKD- 179
Db 148 VANGML-----IRKDFYSYV-RTFSYAPFDNKAKIYMRQFYNNENGSIAYREYIDED 198
QY 180 -----IREVIANGELIIFKLD----- 194
Db 199 EHVFFVDDARLYSKOALVAYFIROLRLANSEDIILIDRATDVQALLENKSGSKGVVVVHA 258
QY 195 -----GDIDRTQFIWMKY-----FSIFNTELSQSNIBERYKIQSYSEYKLD 237
Db 259 EHFSEGATDGTILWNNYEQYFENAAQHIDFITATDLQRTLSEQEF-----QYKND- 312
QY 238 GNPLMYNKEYFMFNAGNKNYSYKLLKSDPSVGEILTRSKYNSKYNIRYLDYIGKFIIR 297
Db 313 -----PRIPIVGSIESLQYPEKERKPYSIWTSARL-ANEXHVD---WIVEA-VIK 359
QY 298 RKSNSOSINDDIV-----RKEDIYIL--DFTNLQWVRVYKYKKEE 340
Db 360 AKHQLPQLSFDYIGOGEEQEKIKNIITKHRAEDYIQIKGHRNLRTIQQY----- 409
QY 341 KLFAPISDSDELYNTIQ-----IKEYDEQPTYSQOLLFKKDEE 379
Db 410 ELFIA-ASOSEGFTLMEAVSGGLMGTFDYNVYGPSFPIRHH--QNCYLPIDF--EQA 464
QY 380 STDEIGLIGIH---RFYESG-----IVFEEKYDYFCISKW 411

DB 465 STDDTTQIAHMIYIFEDGPIRAHEVSYDAESFKTSHVLDW 508

RESULT 9

US-10-092-411A-4669

Query Match 4.6%; Score 109; DB 6; Length 384;

Best Local Similarity 22.28; Pred. No. 1.8; Indels 139; Gaps 25;

Matches 88; Conservative 63; Mismatches 106;

DB 111 WKISGRNRIIWLIDNGK--TKSVFFEYNIRE--DISEYINRWFFVITNMLNNAKIY 166

DB 5 YTIKIR-NEIIMKIVEKSKNGTGMILDGNNEPIVDVRYLK--YLDVSKSLNKKTKY 61

DB 167 INKLESNTDIDIREVIANGELIIFK---LDGIDRTQI--WKK---YFSFNTLSQS 218

DB 62 AVA-----LAKFVLESKKICYEVSDFNDV---FIRMWKTFFEYNVLSVRKEK 111

DB 219 NIEER-----YKIQSYSEYL-----KDFWGNPLMKNKYMFNAGKNKY----- 258

DB 112 SISPKTINLTMTVSNFYDLYRSKLDVNFYDFMHWESKYSKKYSFHHINKDYRTLK 171

DB 259 --IKLKDSVPGEILTRSKYQNSKYINRYDLIGKEFIIR-----RKNSQSIN-DD 308

DB 172 NIKKVEPKKIEVLTNAEVRKLLLEAAN---NIRKFTLIQLLYETGLRIGEVLSLRDD 227

DB 309 I---VRKEDIYL-DFFNLQGEWRVYTYKFKKEEKLFLA-----PISD--- 349

DB 228 IKFDFRKGHQIVLKNRFDNG-----TYLKTGERKIFISQSLDLYDDVYIEIDELS 280

DB 350 --SDELYNTIQIKVEDEPTYS--QLLFKDEESTDEIGLIGHI-----RFYSGVIFVEY 402

DB 281 ICSDYLFVIRKGRNVGEAMNYSYLSFKLAKTKS-----INVHPLFRHTATVYFNET 336

DB 403 KDYFCISKWYKVKRK--PYNLXGNCWQFIPKDE 436

DB 337 KD-----IKQVRLGHNSIOTTINLVVHTEE 364

RESULT 10

US-10-092-411A-3930

Query Match 4.6%; Score 108.5; DB 6; Length 564;

Best Local Similarity 19.1%; Pred. No. 2.9; Indels 145; Gaps 25;

Matches 87; Conservative 76; Mismatches 147;

DB 2 ANKYNSEILNIIILRYKONNLIDLSGAKYEVYDG--VE--LND-----KNQFK 49

DB 57 ATSYHPKMLXVVL-----YATQSVFSGRKIEKLNDLSIRMMW-SQNO-K 101

DB 50 LTSSANSIRVTONIIFNSVFLDFSVSWIRPKYKNDGIONVIHNEYTTINCKNN- 108

DB 102 PSYKTINFRVNPVDALESLEFIQF-----HSQ-----CLKQNL 136

DB 109 -----SGWKISIRGNR--IIWTL-----IDINGTKSVFFEYNIREDISEYNRWF 152

DB 137 IDDOAIFIDGTKEVANANRYTFVWKKSIQNHESRMENSKALYHELVIKTIPE-IKK-- 193

DB 153 FVTIINLNNAKIYINGKLESNTDIDIREVIANGELIIFKLDGIDRTQFIWMKYFSIFN 212

DB 194 --DHNDUTKEIDLIGS-HLCKEIEDLNQHDNEKC----- 227

DB 213 TELSQNTSEERYKIQSYSEYLKDFWGNPLMKNKYMFNAGKNKYIKLKDSPV----- 267

DB 228 TKIRQIRLKTIKIKYKQINDYSQKHKHYEQKSIK--DRNSYKTDHDAFMWKE 285

DB 268 -----GELLITSKNY---QNSKYINRYDLICE-----KFIIRKSNQSINDDIVR 311

DB 286 DHMKNGQL--KPGINLQIATNSQFVJFYDVIQNTPTTRMTIPIFLNTIQTGYCHUPEYIA 343

DB 312 KEDY-----IYDLFFNLQGEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIKEYDE 364

DB 344 DAGYSGEANYMAIIDNFENRTP---LITYGMFIKDKTKY-----KSDIENT-QNWDYDE 393

DB 365 -QPIYSC-----QLLFKDEESTDEIGLIGHIREFYE 394

DB 394 INDEFCIPNNRRLGFKRYAYRHDYKGFKRDKLYE 428

RESULT 11

US-10-092-411A-3544

Query Match 4.6%; Score 108; DB 6; Length 406;

Best Local Similarity 19.5%; Pred. No. 2.2; Indels 112; Gaps 21;

Matches 77; Conservative 73; Mismatches 132;

DB 2 ANKYNSEILNIIILRYKONNLIDLSGAKYEVYDG--VE--LND-----KNQFK 49

DB 57 ATSYHPKMLXVVL-----YATQSVFSGRKIEKLNDLSIRMMW-SQNO-K 101

DB 50 LTSSANSIRVTONIIFNSVFLDFSVSWIRPKYKNDGIONVIHNEYTTINCKNN- 108

DB 102 PSYKTINFRVNPVDALESLEFIQF-----HSQ-----CLKQNL 136

DB 109 -----SGWKISIRGNR--IIWTL-----IDINGTKSVFFEYNIREDISEYNRWF 152

DB 137 IDDOAIFIDGTKEVANANRYTFVWKKSIQNHESRMENSKALYHELVIKTIPE-IKK-- 193

DB 153 FVTIINLNNAKIYINGKLESNTDIDIREVIANGELIIFKLDGIDRTQFIWMKYFSIFN 212

DB 194 --DHNDUTKEIDLIGS-HLCKEIEDLNQHDNEKC----- 227

DB 213 TELSQNTSEERYKIQSYSEYLKDFWGNPLMKNKYMFNAGKNKYIKLKDSPV----- 267

DB 228 TKIRQIRLKTIKIKYKQINDYSQKHKHYEQKSIK--DRNSYKTDHDAFMWKE 285

DB 268 -----GELLITSKNY---QNSKYINRYDLICE-----KFIIRKSNQSINDDIVR 311

DB 286 DHMKNGQL--KPGINLQIATNSQFVJFYDVIQNTPTTRMTIPIFLNTIQTGYCHUPEYIA 343

DB 312 KEDY-----IYDLFFNLQGEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIKEYDE 364

DB 344 DAGYSGEANYMAIIDNFENRTP---LITYGMFIKDKTKY-----KSDIENT-QNWDYDE 393

DB 365 -QPIYSC-----QLLFKDEESTDEIGLIGHIREFYE 394

DB 394 INDEFCIPNNRRLGFKRYAYRHDYKGFKRDKLYE 428

RESULT 11

US-10-092-411A-3544

Query Match 4.6%; Score 108; DB 6; Length 406;

Best Local Similarity 19.5%; Pred. No. 2.2; Indels 112; Gaps 21;

Matches 77; Conservative 73; Mismatches 132;

DB 2 ANKYNSEILNIIILRYKONNLIDLSGAKYEVYDG--VE--LND-----KNQFK 49

DB 57 ATSYHPKMLXVVL-----YATQSVFSGRKIEKLNDLSIRMMW-SQNO-K 101

DB 50 LTSSANSIRVTONIIFNSVFLDFSVSWIRPKYKNDGIONVIHNEYTTINCKNN- 108

DB 102 PSYKTINFRVNPVDALESLEFIQF-----HSQ-----CLKQNL 136

DB 109 -----SGWKISIRGNR--IIWTL-----IDINGTKSVFFEYNIREDISEYNRWF 152

DB 137 IDDOAIFIDGTKEVANANRYTFVWKKSIQNHESRMENSKALYHELVIKTIPE-IKK-- 193

DB 153 FVTIINLNNAKIYINGKLESNTDIDIREVIANGELIIFKLDGIDRTQFIWMKYFSIFN 212

DB 194 --DHNDUTKEIDLIGS-HLCKEIEDLNQHDNEKC----- 227

DB 213 TELSQNTSEERYKIQSYSEYLKDFWGNPLMKNKYMFNAGKNKYIKLKDSPV----- 267

DB 228 TKIRQIRLKTIKIKYKQINDYSQKHKHYEQKSIK--DRNSYKTDHDAFMWKE 285

DB 268 -----GELLITSKNY---QNSKYINRYDLICE-----KFIIRKSNQSINDDIVR 311

DB 286 DHMKNGQL--KPGINLQIATNSQFVJFYDVIQNTPTTRMTIPIFLNTIQTGYCHUPEYIA 343

DB 312 KEDY-----IYDLFFNLQGEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIKEYDE 364

DB 344 DAGYSGEANYMAIIDNFENRTP---LITYGMFIKDKTKY-----KSDIENT-QNWDYDE 393

DB 365 -QPIYSC-----QLLFKDEESTDEIGLIGHIREFYE 394

DB 394 INDEFCIPNNRRLGFKRYAYRHDYKGFKRDKLYE 428

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DB 50 LTSSANSIRVTONIIFNSVFLDFSVSWIRPKYKNDGIONVIHNEYTTINCKNN- 108

DB 102 PSYKTINFRVNPVDALESLEFIQF-----HSQ-----CLKQNL 136

DB 109 -----SGWKISIRGNR--IIWTL-----IDINGTKSVFFEYNIREDISEYNRWF 152

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DB 268 -----GELLITSKNY---QNSKYINRYDLICE-----KFIIRKSNQSINDDIVR 311

DB 286 DHMKNGQL--KPGINLQIATNSQFVJFYDVIQNTPTTRMTIPIFLNTIQTGYCHUPEYIA 343

DB 312 KEDY-----IYDLFFNLQGEWRVYTYKFKKEEKLFLAPISDSDELYNTIQIKEYDE 364

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DB 365 -QPIYSC-----QLLFKDEESTDEIGLIGHIREFYE 394

DB 394 INDEFCIPNNRRLGFKRYAYRHDYKGFKRDKLYE 428

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DB 50 LTSSANSIRVTONIIFNSVFLDFSVSWIRPKYKNDGIONVIHNEYTTINCKNN- 108

DB 102 PSYKTINFRVNPVDALESLEFIQF-----HSQ-----CLKQ

